

DAILY METAL REPORTER

MONTHLY SUPPLEMENT

METALS

Published Since 1929

In This Issue

THE WORLD COBALT SITUATION

By Dr. F. R. MORRAL
Cobalt Information Center

METALS CONSUMPTION IN NEW AGE

By PAUL E. GRAINGER
British Bureau of Metal Statistics

BRITISH METAL MARKETS

By L. H. TARRING
London, England

DOMESTIC METAL MARKET REVIEW

WASHINGTON REPORT

METAL STATISTICS

**SEPTEMBER
1960**

Kennecott Copper Corporation Kennecott Sales Corporation

Producers and Sellers of
Electrolytic Copper
Chino Fire Refined Copper (K.C.M.)
Braden Fire Refined Copper (★★★)
Molybdenite

Offices

161 East 42nd St., New York 17, N. Y.

PHELPS DODGE CORPORATION

PHELPS DODGE REFINING CORPORATION

300 PARK AVENUE, NEW YORK 22, N. Y.

C O P P E R

P★D—ELECTROLYTIC—LNS
PDM FIRE REFINED

COPPER SULPHATE — NICKEL SULPHATE
SELENIUM — TELLURIUM — PRECIOUS METALS

Buyers of

BULLION, ORES, CONCENTRATES, MATTE and BLISTER

Subscription
\$5.00 a Year
50c a Copy

DAILY METAL REPORTER MONTHLY SUPPLEMENT METALS

Registered U. S. Patent Office
Published Monthly Since 1929

Charles H. Lipsett
Publisher
Dr. J. Zimmerman
Editor
M. Goldfischer
Associate Editor

Monthly Supplement of
Daily Metal Reporter
September 27, 1960

SEPTEMBER, 1960

Vol. 31 — No. 3

TABLE OF CONTENTS

Washington Report	4
The World Cobalt Situation	7
By Dr. F. R. MORRAL Cobalt Information Center	
Metals Consumption in the New Age	9
By PAUL E. GRAINGER British Bureau of Non-Ferrous Metal Statistics	
British Metal Markets	11
By L. H. TARRING London, England	
Domestic Metal Market Review	13
Metal Brands	16
U. S. Metal Import Duties	17
Metal Statistics	19

METALS — 425 West 25th Street, New York 1, N. Y.

Published by the National Business Press, Inc.

Phone: WAtkins 4-0660

Cable Address: ATPUBCO, New York

Branches: Washington, Philadelphia, Chicago, Boston

London Office: 81 Highview Ave., Edgware, Middlesex, England

Cable Address: ATPUBCO, London

Affiliated Publications: Daily Metal Reporter, Daily Mill Stock Reporter,
Waste Trade Journal, Waste Trade Directory, Standard Metal Directory,
Mines Register, World's Waste Trade Directory, Sales (Weekly).

Two LINE Editorials

The worst thing about our Presidential campaigns is that the charges and counter-charges are bound to give the rest of the world the impression that none of the candidates is fit to hold the job.

Why wouldn't it be a master-stroke of diplomacy to offer the Russians all our claims on the moon, if they will only get off the earth?

One Washington official has advanced the idea that the way to reduce our wheat surpluses is to grow less wheat. But surely such a simple and common-sense remedy as this couldn't possibly be accepted.

An Ohio college president says that today's educational methods "won't be adequate or suitable for 1970." What worries a lot of people, however, is whether they are adequate or suitable for 1960.

An advocate of "Pay TV" expresses the opinion that listeners ought to be willing to pay "what it's worth" for the privilege of listening. But would that bring in any great amount of revenue?

A news item from Mexico tells of the discovery of a strange creature "with two tongues and no brains." Sounds like ideal equipment for a rabble-rousing demagogue.

A news item states that the paper used in printing a billion dollars' worth of currency costs \$2,500,000. That's almost as much as the purchasing power of the currency after it is printed.

Washington Report



September 13, 1960

"NEVER BEFORE has so much been said by so many about so little" might be a suitable epitaph for the lead and zinc subsidy legislation which died on the President's desk as Congress adjourned last month. President Eisenhower said that he was withholding approval of the measure (H.R. 8860) because it would "intensify the industry's problems" and "frustrate programs now in effect that are generally bringing the production and demand" of lead and zinc into balance.

The measure, which had been offered by Rep. Ed Edmondson (Dem., Okla.) would have authorized subsidy payments based on the difference between market prices and a price of 17 cents per pound for lead and 14½ cents per pound for zinc to mines not producing more than 2,000 tons annually of each metal.

Congressional Reaction

Interviewed by *Metals* following President Eisenhower's decision not to approve the subsidy bill, Rep. Edmondson criticized the Executive agencies of the Government for what he termed their short-sighted policy of overlooking the needs of the domestic lead and zinc producers and considering only foreign policy aspects.

"I feel confident that next year a number of Congressmen will introduce bills to obtain justice for the depressed mining industry," Rep. Edmondson said. "If I am fortunate enough to be returned to the Congress, I shall certainly make every effort to see that a fair bill is passed."

In a plea to President Eisenhower to sign the bill, Rep. Edmondson had claimed it was almost identical to the small producers' section of the Seaton bill which the Administration supported in 1958.

Also reacting to the President's rejection of the subsidy legislation was Rep. Lee Metcalf (Dem., Mont.) who pointed out that lead and zinc domestic output had declined more than one-third since 1951 while imports increased to 91 per cent of U. S. production for lead and 119 per cent for zinc. President Eisenhower, Rep. Metcalf said, had "turned his back" on

Views of Industry

Word of the President's decision to reject the subsidy bill was greeted with mixed reaction from industry members. While spokesmen for some small producers voiced disappointment, other industry members said the action would be beneficial in the long run.

Proponents of higher tariffs as a solution to the domestic lead and zinc mining industry's troubles felt that the proposed subsidy program would merely have "thrown a bone" to the hard-hit industry and not cure any of the ills. This way, with no subsidy program enacted, they argued, the industry at the next session of Congress will be able to exert full pressure for a long-range effective solution to the problems of the mining industry.

Text of President's Message

"I have withheld approval of HR 8860, 'to stabilize the mining of lead and zinc by small domestic producers on public, Indian, and other lands, and for other purposes.'

"HR 8860 authorizes lead and zinc subsidies based on the difference between market prices and a price of 17 cents per pound for lead and 14½ cents per pound for zinc. The subsidies would be paid on the output of mines producing not more than 2,000 tons annually of each commodity.

"The problems of our lead and zinc miners have caused me concern for some time. To help solve these problems, the Administration has taken administrative action and has twice proposed legislation which the Congress did not enact. Thereafter, in October of 1958, I reduced imports by imposing quantitative controls.

"Now the Congress has enacted HR 8860, but unfortunately it would harm rather than help the lead-zinc industry. It would negate the progress of recent years, increase the problems of lead-zinc producers, subject the

market to instability, and burden our taxpayers with unsound subsidies. Apart from the fact that the appropriations authorized by the bill would be completely inadequate to pay the proposed subsidies — with the result that the bill's intended beneficiaries could be misled into production for which they would not receive the promised subsidies — the bill has these fatal defects:

"1. HR 8860 would intensify the industry's problems by generating substantial additional production at the expense of other miners' jobs. Its subsidiaries would induce the opening for full-time production of many mines which are not now operating, some of which have operated only intermittently in the past. The substantial addition to supply would depress lead and zinc prices and thus cause cutbacks and layoffs of mine workers in the subsidized mines.

"2. The subsidized production induced by this bill would complicate, even frustrate, programs now in effect that are generally bringing the production and demand of these commodities into balance. As a result of existing import controls and continuing international cooperation, the volume of imports is at the lowest levels and constitutes the smallest percentage of total lead-zinc in supply, in nearly a decade. This has made it possible during 1959 for domestic lead and zinc producers to reduce excess stocks and to increase mine output. While consumption of these two metals has been at disappointing levels, the domestic industry should, with increased demand, again move rapidly forward to normal and stable operations at reasonable prices. The depressed prices that would result from the subsidy program would represent a backward step. A lasting solution can best be achieved through a worldwide balance of production and consumption, and that is the object of past and current international consultations.

"3. Approval of HR 8860 would generate demands for equal treatment and similar subsidies from other producers of lead and zinc as well as producers of many other minerals. Such a system of subsidies would make a substantial portion of domestic mining totally dependent on Federal appropriations and would thereby lessen incentive for the technological improvements vital to the continued health of American mining.

"For these reasons, I am compelled to hold my approval of HR 8860."

Tariff Hearings

With Congress adjourned and metals legislation no longer in prospect, at least until 1961, the spotlight swung over to the Tariff Commission where hearings were held on proposed concessions to be offered or asked at forthcoming sessions of the General Agreement on Tariffs and Trade in Geneva, Switzerland. Among those appearing were representatives of the lead and zinc, copper and brass and nickel industries.

Clark L. Wilson, chairman, Emergency Lead-Zinc Committee, told the

(Continued on Page 8)

CALUMET & HECLA, INC.

LAKE COPPER
HIGH SILVER
LAKE COPPER
ARSENICAL LAKE COPPER
COPPER OXIDE

Sales Representatives
 122 South Michigan, Chicago 3, Ill.

Electrolytic Lead Zinc Cadmium

**UNITED STATES SMELTING
REFINING and MINING
COMPANY, INC.**

SALES OFFICE
 62 William St. New York, N. Y.

producers of:

Antimonial Lead	Lead, Test
Antimony	Litharge, C. P.
Antimony Oxide	Molybdenum Concentrates
Arsenic	Nickel Salts
Asbestos	Selenium
Bismuth	Silver
Cadmium	Sulfur Dioxide, Liquid
Cadmium Oxide	Sulfuric Acid
Cadmium Sulfide	Tellurium
Copper	Thallium
Fluorspar	Thallium Sulfate
Germanium Concentrates	Zinc
Gold	Zinc Dust
Indium	Zinc Sulfate
Lead	

ASARCO

AMERICAN SMELTING AND REFINING COMPANY
 120 BROADWAY, NEW YORK

"WOW"

... another price change!



• Prices are changing daily on

COPPER • ZINC • LEAD • ANTIMONY • ALUMINUM •
 TIN • SCRAP METALS • SCRAP IRON

Daily or Special WIRE SERVICE

Sudden market changes telegraphed immediately.

JOIN the hundreds of subscribers to our Wire Service who receive telegraphic reports on any sudden decline or advance in market prices. Up-to-the-minute authoritative information of this kind is absolutely essential today to every dealer or smelter. Write today for full details to: Daily Metal Reporter — Wire Service, 425 West 25th Street, New York, 1, N. Y.

Metal Traders, Inc.

26 Broadway, New York

Telephone:

BOWling Green 9-6820



BUYERS and SELLERS of
ALL METALS and ALLOYS
METALLIC ORES
SCRAP METALS
RESIDUES

SUPERIOR

"All The Name Implies"



HIGH GRADE
ZINC DUST

INTERMEDIATE GRADE
SLAB ZINC



SUPERIOR ZINC CORP.

City Center Building — 121 N. Broad Street
PHILADELPHIA 7, PA. — Works: Bristol, Pa.

selling

COPPER • LEAD • ZINC • TIN

silver—bismuth—cadmium
OFHC® Copper—OFHC® Copper Anodes
solder—metal powders—zinc-base alloys
selenium—tellurium—germanium

MOLYBDENUM

ferromolybdenum—technical molybdic oxide
technical thermite metallic molybdenum
moly sulfide —molybdenum pentachloride
pure molybdic oxide—calcium molybdate

buying

ORES • SCRAP • RESIDUES

for custom smelting and refining

gold—silver—copper
zinc and lead ores, sweeps,
mattes, and bullion
copper and brass scrap
copper-bearing material
zinc drosses and skimmings
lead scrap and residues
lead-covered cable
tin-bearing material
automobile radiators

AMERICAN METAL CLIMAX, INC.
1270 Avenue of the Americas, New York 20, N. Y.



The World Cobalt Situation

By DR. F. R. MORRAL, Cobalt Information Center

THE TWO hottest spot in the world during the past few weeks and months — Cuba and the Belgian Congo — are a growing concern to United States cobalt consumers.

According to last year's schedule, the Freeport Nickel Company should now be producing more than 2,000 short tons per year of cobalt, bringing concentrate from Cuba to the New Orleans reduction plant; the Cuban situation has put at least a temporary stop to these plans.

In 1959, the Belgian Congo produced 53 per cent of the cobalt in the Free World. Because of disturbances there, production of cobalt in the Katanga province was stopped in mid-July. However, late in July, mining operations had been resumed.

These events obviously concern United States consumers of cobalt, and particularly those of such an important industry as is represented here today. It is probable that some of you are recalling the 1950 "cobalt scarcity" program which certainly brings unpleasant memories — worries about possible restrictions, black markets, searches for new substitutes, and unplanned expenditures for research and development programs.

Situation Different From 1950

To somewhat alleviate these recollections, I would like to show how the situation now, in 1960, is quite different from that in 1950. Let me review a few pertinent points:

Technical know-how. The price of cobalt early in the last decade and the interest of the United States Government have encouraged important improvements in processing. Furthermore, new methods to recover cobalt from low-grade cobalt ores have been developed. I am referring here specifically to the high-temperature, high-pressure leach process used by several American companies and considered by some foreign concerns.

Plant facilities have been increased throughout the world. World production statistics attest to this (Table 1). For 1961, a 25,000-short-ton-per-year capacity for cobalt has been predicted (Mineral Facts and

Problems, 1960, page 222). In the United States, cobalt production capacity exceeds 4,000 tons per year. If Canada's facilities are considered, more than 6,000 tons per year of cobalt could be produced. This would be sufficient to supply North America's present consumption requirements. However, under the present circumstances, certain potential producers are not in a position to operate.

Industrial cobalt requirements. The requirements for cobalt in your industry over the past 10 years are shown in Table 2, together with consumption figures for the next largest user of cobalt (high-temperature alloys). Table 3 shows total United States cobalt consumption; the rate can be seen as fairly constant, in the order of 5,000 short tons. This, as we have seen, could be jointly supplied by the United States and Canada.

Stockpile Situation

Stockpile. To quote Mineral Facts and Problems for 1960 (page 221), "Cobalt, a strategic and critical metal, has been on the list of materials to be acquired as insurance against supplies from foreign sources being cut off in an emergency" (see Table 3).

In the New York Times of July 17, 1960, Peter Bart asks, "How much is enough?", and states that the "cobalt hoard has grown far too large". He points out that \$15,000,000 in cobalt contracts are still outstanding.

Cobalt metal bought for DPA (Defense Production Act of 1950) and held under authority of GSA (General Services Administration), is worth \$126,672,000 (American Metal Market, June 7, 1960, page 1, F. Bishop). From this value, I estimate conservatively that there are about 27,000 short tons of cobalt in the

Table 1. World Production of Cobalt
(IN SHORT TONS)

	1949-53 (av.)	1955	1956	1957	1958	1959
United States	327	926	1,269	1,651	2,012	1,300*
Belgian Congo	6,697	9,443	10,019	8,945	7,166	9,374
Canada	519	1,659	1,758	1,961	1,261	1,649
Northern Rhodesia	718	741	1,205	1,583	1,774	2,372
French Morocco	641	834	710	500	1,021	1,391
Germany .....	...	...	1,031	1,082	1,219	1,620
Others .....	...	...	4	89	142	44*
Total	9,500	14,700	16,300	16,050	14,595	17,750

* Estimated

Table 2. Cobalt Alloys — U. S. Consumption
(IN SHORT TONS)

Year	Magnetic		High Temperature	
	Short Tons	Per Cent	Short Tons	Per Cent
1960 (4 months) ...	480.9	28.7	368.1	22.0
1959	1,489.6	30.0	1,211.8	24.4
1958	1,170.2	31.0	1,096.2	29.0
1957	1,463.0	31.9	1,377.6	30.0
1956	1,398.6	29.2	1,509.0	31.5
1955	1,409.0	28.9	1,610.0	33.0
1950	1,417.0	34.2	1,113.0	26.8
1949-1953 (average)	1,008.0	22.6	2,009.0	45.2

Table 3. U. S. Cobalt Statistics
(IN SHORT TONS)

Year	Foreign Imports	U. S. Production	U. S. Consumption
1960 (4 months)	2,122	...	1,672.0
1959	10,606	1,066†	4,949.0
1958	7,574	2,416	3,771.0
1957	8,725	2,061	4,578.3
1956	7,788	1,827	4,781.1
1955	9,366	1,219	4,870.2
1954	8,432	998	3,675.1
1949-1953 (average)	5,916	485	4,448.0

† 6 months.

Talk presented before the Permanent Magnet Producers Association, Chicago.

United States stockpile. Table 3 lists foreign imports and United States production as well as consumption. The difference should give a fair indication of the size of the stockpile. Therefore, the stockpile contains enough cobalt to supply the United States for more than five years at present consumption rates.

The giant GSA hoard actually is divided into two major stockpiles — the strategic stockpile, and the Defense Production Act inventory. GSA officials announced two years ago that they had achieved their cobalt requirements and needed no more. Thus, a generous supply of cobalt should be available to you if United States production and foreign imports become insufficient to meet the demands of United States industry.

Cobalt Ore Reserves

Reserves. I would like to briefly mention cobalt ore reserves. A comparison between reserves estimated in 1950 (1950 Report by U. S. Bureau of Mines for National Resources Board) and 1960 (Mineral Facts and Problems, 1960, page 219) may be of interest.

	In 1,000 Tons	
	1950	1960
Belg. Congo-Katanga	225	750
United States	40	150
Canada	130	130
N. Rhodesia	115	250
Cuba	13	370
Philippines	—	100
New Caledonia	—	440
French Morocco	11	11
Uganda	24	24

Total 560 2,230
(Includes assured and inferred ore.)

Scrap Situation

As far as scrap is concerned, the Mineral Facts and Problems for 1960 states "the quantity of cobalt potentially available in the United States as scrap in various forms . . . is not known" (page 219). Companies in this country are successful in making salts from cobalt scrap, and some United States scrap is sold abroad. Only a few weeks ago, I was talking with an engineer in Germany whose company had made a 100-ton pilot plant run on cobalt-base high-temperature alloy scrap. He also mentioned that they had successfully recovered all the metals present.

Production Outlook

Production Outlook. The present price of cobalt (\$1.50 per pound) is only double that of nickel. There is no reason why this price should be modified as long as Katanga plants keep operating, which seems quite

probable.

Indeed, the most reassuring answer to growing concern comes from fully authorized sources in Brussels. This is that production and shipments from Katanga are proceeding normally. With very large stocks of cobalt alloys available in Belgium for processing, there seems no need to worry in the United States about a plentiful cobalt supply from that source. Other sources of supply are continuing normally, of course.

Abundant Supply in Stocks

In summary: Even if the worst imaginable (and now unforeseen) world events should cause world cobalt production to drop drastically for the next few years, we have an abundant supply of this metal in surplus stocks and stockpiles to feed industry at its present rate. In the meantime, plants now closed in the United States and Canada could be reactivated. If demand rises, both United States and foreign producers would have an interest in using their technical know-how and increasing their production or installing new facilities to supply the needed metal. A national inspection of this supply picture should allay any concern now felt by cobalt consumers. It is my own belief that the Cuban and Congo crises offer world politicians much more genuine cause for concern than they do United States consumers of cobalt.

Washington Report

(Continued from Page 4)

commission that the economic situation of the domestic lead and zinc industry "is still critical even though it operates under import controls provided by trade agreement procedures." He contended that legislative action was required to correct the industry's problems.

Mr. Wilson said that while the list of products to be considered for possible U. S. concessions at forthcoming trade negotiations does not include "like or directly competitive articles" produced by members of his committee, "there are many items included for consideration of possible concessions that use substantial quantities of unmanufactured lead and zinc."

The Emergency Lead-Zinc Committee spokesman continued:

"We all recognize that for economic reasons the United States does not have an export market for unmanufactured lead and zinc products. Our domestic production and the substantial foreign imports of these two metals are used by the United States

manufacturing industry. A surplus over the necessary supply from imports takes a portion of the domestic mining industry out of business. An increase of imported lead and zinc products, due to tariff concessions would further affect the miner and also take business from the United States manufacturers. Any new source of imported lead and zinc, regardless of its form will directly bypass present import restrictions on lead and zinc ores and metal and further weaken a domestic mining industry that has experienced, and is still experiencing, several years of severely depressed activity in mining, development, and exploration."

Statement by Veltfort

T. E. Veltfort, managing director, Copper and Brass Research Association, told the commission that domestic brass mills need higher tariffs "to offset, at least in part, the insuperable handicap of much lower wages abroad." Mr. Veltfort said that any increase in competition from abroad because of lowered tariffs would gravely aggravate an already serious situation for the entire industry and constitute an especially serious threat to the smaller mills.

The CABRA executive said the smaller mills "would find it economically impossible to switch to other lines nor could they transfer their operations abroad to escape the consequences of low price imports made by low wage foreign labor."

Kennedy Asks Embargo Study

James M. Kennedy, chairman, Revere Copper and Brass Incorporated, asserted that the domestic brass mill industry "has been sacrificed to the policy of free trade." He advocated "for further study the thought that we should place temporary embargoes on all brass mill products entering this country." Then, he added, we should "give consideration to a quota system and to an increase in tariff rates sufficient to equalize the difference in labor and other pertinent costs."

Mr. Kennedy said "we gave aid and assistance to England, West Europe and Japan and their brass mill industries are booming. Ours have suffered a serious decline."

The Revere executive maintained that "no economic justification existed" for tariff cuts previously made. He added:

"The foreign fabricators' advantage in labor costs far exceeded the slight protection afforded by the original tariff list. Some of our industries are in real trouble. The list is growing

(Continued on Page 14)

Metals Consumption in the New Age

By PAUL E. GRAINGER, The British Bureau of Non-Ferrous Metal Statistics

THE WORLD's demand for non-ferrous metals appears to be virtually insatiable. Of the approximately 100 chemical elements known today, more than 80 are metals, and all except iron (and steel) are strictly non-ferrous metals. In 1900 less than 20 metals, including gold and silver, were used commercially. Today there are about 50, but half of these are produced in comparatively small quantities and their rapid expansion has yet to come.

Taking the six principal metals, aluminum, copper, zinc, lead, nickel and tin, world consumption of refined metal has increased from about 2,000,000 tons in 1900 to about 13,000,000 tons in 1959. In addition, some 3,000,000 tons of scrap are now re-used by manufacturers every year. Table I shows how consumption has developed since the beginning of the century, with an estimate for the next 10 years. It relates to refined metal—that is, newly mined metal plus scrap re-processed by refineries. Scrap used direct by manufacturers is not included.

World consumption has gone up by over one-half during the last 10 years, the long-term trend showing a fairly constant increase of about 4 per cent annually. This is not surprising when one considers the main uses.

Transport Uses

Transport undoubtedly already takes more than any other single use—in motors, railways, ships and aircraft. Yet there is every indication of a growing content in each unit as, for example, aluminum is substituted for steel in many structural parts. Consider the metals which go into a motor car today—besides the principal six metals there are chromium, cadmium, antimony, cobalt, tungsten, indium, manganese, silicon, zirconium and others, in one form or another.

Non-ferrous metals enter into almost every branch of human activity. Electric power, domestic appliances, radio, television, telephones, building and plumbing, furnishings, food and drink manufacture, the chemical industries, and engineering generally

—all rely on them as part of their raw material or in plant and equipment.

Generally, the outlook for metals is governed by four main factors. First, the planned increase in the standard of living; second, the increase in world population; third, the many new uses for existing and new metals made both possible and necessary by scientific developments; fourth, the development of the vast under-developed countries. Today the Western countries have come to depend on the mineral production of these areas, where mining industries can contribute much to industrialization.

Consumption in Britain has not increased as fast as in the world as a whole because industrial development began much earlier in this country. Table II shows the growth of metal consumption in Britain. Scrap used direct by manufacturers is included, because we are not a producing but a manufacturing country. Since the war scrap has come to play an increasingly large part in raw material supplies.

Aluminum appears to be due for the greatest expansion during the next 10 years. Its development has already out-paced that of any other metal. The metal's main use is not

in domestic and similar equipment, which takes barely 10 per cent of all aluminum used in Britain, but it is likely to increase considerably as aluminum replaces steel in refrigerators, washing machines, office furniture, and so on.

The main peace-time outlet has always been in transport, principally for cylinder blocks, and heads in motor engines, and more aluminum is being used in each vehicle—for example, in body panels. Recent development of chemically brightened aluminum makes it a likely substitute for zinc alloys and chromium-plated steel in radiator grilles, bumper bars, and fittings.

Comparatively little aluminum has been used so far in rail transport and shipbuilding. It has only recently gained acceptance for railway carriages in Britain—shortly about 600 aluminum carriages will be running on the London Underground, and there is a much larger potential for diesel coaches. Development of the technique of automatic seam welding of aluminum makes possible the use of large prefabricated sections of shipbuilding.

Packaging Trend

American influence may lead to its wider use in building—for roofing

TABLE I — WORLD CONSUMPTION
Annual averages — '000 metric tons

	1960s	1950s	1940s	1930s	1920s	1910s	1900s
Tin	207	168	135	156	147	122	104
Nickel	260	197	147	84	37	36	15
Lead	2,294	2,152	1,519	1,468	1,390	1,126	980
Zinc	3,497	2,391	1,673	1,337	1,107	886	673
Copper	5,010	3,691	2,668	1,843	1,346	1,126	686
Aluminum	5,752	2,861	1,258	390	176	94	17
Total	17,020	11,560	7,400	5,278	4,203	3,390	2,475

TABLE II — U. K. CONSUMPTION
Annual averages — '000 long tons

	1960s	1950s	1940s	1930s	1920s	1910s	1900s
ALUMINUM							
New metal		239	164				
Scrap		77	46				
Total	490	316	210	41	15	6	1
COPPER							
New metal		372	337				
Scrap		240	183				
Total	750	612	520	290	120	171	114
LEAD							
New metal		180	176				
Scrap		161	150				
Total	364	341	326	312	224	201	214
ZINC							
New metal		227	222				
Scrap		39	42				
Total	290	266	264	189	150	135	133

Reprinted from the 1960 Annual Review Edition of Financial Times of London.

curtain walling, windows and fittings. But the largest proportionate increase will probably be in packaging, aluminium's second largest outlet. Beer cans, bottle tops, collapsible tubes, cigarette and food wrapping (where aluminium has certain technical advantages) could easily absorb as much as 100,000 tons of metal a year in Britain alone.

Altogether, consumption of aluminium in Britain is expected to increase by some 5 per cent a year. The main struggle will be with steel, not copper. In the electrical industry, aluminium's fourth largest outlet, copper reigns supreme and, saving any further periods of extreme scarcity or high price of copper, the substitution of aluminium in this field may well have reached its peak.

Copper Demand

Copper is still the leading non-ferrous metal, judged on tonnage. Demand arises mainly through demand for intermediately or semi-fabricated products — wire, sheets, tubes, and so on, either of copper or its alloys such as brass and bronze. Britain is the world's largest exporter of copper and copper alloy semis, either directly (about 80,000 tons annually) or indirectly in machinery and manufactured articles.

Over one-half of consumption is for electrical purposes — copper's growth has been closely linked with electric power, and will continue so. New machinery, automation, transport, and domestic uses will require ever-increasing amounts of copper, to say nothing of new power stations here and abroad. Electronics, particularly computers, will take much copper, but the stars in this show seem to be the minor metals, the new range of semi-conductors which make miniaturisation possible.

Copper has gained considerable ground in the building industry during the last 15 years, particularly for plumbing. This is now its second largest outlet and will increase as new buildings replace old.

Transport ranks third for copper — motor-car radiators and accessories, ship's plumbing and propellers, locomotive fire-box plates, and many other parts.

Some applications of copper may lose ground to other metals and to plastics, just as some of its increase has been at the expense of lead and zinc. Against this, the development of new protective finishes for the metal, and of new alloys with unusual properties, will bring new markets.

The overall outlook for copper is one of greatly increased consumption.

For 20 years copper's problem has been one of over-supply, aggravated by stockpiling in the mid-1950's. Today there is a potential surplus outside the Soviet bloc, resulting from the provision of some 1,000,000 tons of new mining capacity in the last five years. But there is little more to come under present plans — about 200,000 tons only — and in a few years' time the problem may again be how to provide for all requirements.

Lead reached its peak as an industrial metal at the end of last century and, although consumption has increased considerably since then, each decade it has represented a smaller proportion of the total consumption of the total consumption of metals — now 18 per cent, compared with 40 per cent in 1900. Lead's main outlets vary considerably between countries.

Lead Tonnage

British consumption is about 350,000 tons a year, nearly half of which represent metal recovered from worn-out articles (for example, scrap car batteries) and re-processed. Cable covering takes about one-third of total consumption and although there has been some decline in recent years lead is still indispensable for large power cables and the cheaper forms of paper-insulated (for example, telephone) cable. Electrification schemes both at home and abroad indicate a steady increase in this use.

Modern technique in the building trade still prefers sheet lead for many purposes, but the use of lead pipes appears to be approaching gradually an irreducible minimum. Storage batteries are a growing use, accounting now for 17 per cent of British lead consumption.

Use of white lead in paint has declined rapidly during the last 10 years. It is a good protective pigment but the modern tendency is for lighter-bodied, easier to work paints, and to incorporate the protection in the medium rather than in the pigment.

Nuclear Power

No new uses of any tonnage importance have been found during the past decade and consumption may be approaching its ceiling, though it should continue to rise by about one per cent during the next 10 years. Later in the 1960's a new fillip will be given to lead through industrial application of nuclear power and in nuclear marine propulsion units. The amount involved is quite small at present but it may soon reach several thousand tons a year.

Zinc Outlets

Zinc has five entirely different types of outlets: as a protective coating for steel, in galvanizing, sherardizing, and spraying; in diecasting; as sheet metal for building and for dry batteries; as a chemical in paints, pigments, rubber, ceramics, and pharmaceutical products; and as an essential constituent of brass. But by its very diversity, it is open to attack by a wider range of substitutes.

Galvanizing accounts for nearly one-half of the world's consumption of new zinc, and protects about 6 per cent of annual steel production. In Britain, which leads the world in galvanizing fabricated products, this use now takes less than 40 per cent of new metal, for although output of galvanized products has increased, improved processes have tended to reduce the amount of zinc used and to eliminate waste. Some market have been lost — for example, galvanized hollowware to plastics — but demand for coated structural steel is growing both at home and for export.

Brass and diecastings are the next important outlet, though the relative position varies considerably between countries. Brass, generally 63 per cent copper and 37 per cent zinc, is perhaps the best known and most adaptable alloy in the world. There has been little change in consumption in the last 15 years. The alloy's future is linked with copper, and some increase is confidently expected.

Use of zinc diecastings has been slow to develop in Europe, though there has been a remarkable increase in recent years. The United States uses three times as much zinc diecastings as brass, mainly in motor-cars and domestic appliances, and this trend may develop here as the standard of living increases.

Zinc sheet is an important building material on the Continent, but it is little used in Britain. Zinc oxide has lost a lot of ground to titanium in the paint and ceramic industries, but it is expected to regain some of this. It is soundly based in the rubber industry, and appreciable quantities are now being used in electronics.

PLATINUM VALUE SHIPPED

Certain gold mines in South America were abandoned during the Eighteenth Century because a large quantity of platinum was found to be mixed with the gold. Platinum in those times was worth considerably less than gold.

BRITISH COPPER INDUSTRY SEES WORLD CONSUMPTION NOT GROWING SUFFICIENTLY TO BALANCE PRODUCTION

Tin Buyers Inclined to Mark Time Following Heavy Straits Shipments in July and August; Lead Market Is Colorless; Use of Zinc Slows Slightly

September 8, 1960

ALTHOUGH during the past month there has continued to be the threat of a possible strike at the Chuquicamata mine in Chile at the end of September, production in the Belgian Congo has been maintained at a full rate despite the very troubled conditions in that country, and the overall copper supply position has eased appreciably. American figures have been particularly disappointing and although actual consumption in Europe is still running at a high rate, sentiment has turned easier. Prices have fallen below £240 a ton which—rightly or wrongly—is a figure which has come to have particular significance in the copper market as it is believed that a number of major producers do not like to see the value of their product falling much below this figure.

Symptomatic of the generally easier statistical position has been the continued rise in stocks in official London Metal Exchange warehouses. These now exceed 8,000 tons

By L. H. TARRING
London, England

and this has been reflected in the disappearance of the backwardation in prices. If the upward trend of stocks continues, as it well might, it may be possible to look forward to a contango developing — a feature which is always to be welcomed, since without it hedging is a much less attractive operation as far as consumers are concerned.

Price Decline Checked

In the early part of September an interesting feature on the London market was some forward buying on account of producers. This had the immediate effect of checking the downward trend in prices, but it seems probable in the light of experience that something more will be required to change the basic trend of the market. What everyone would like to see of course is a major improvement in United States consumption, but it must be confessed that the optimism which seems to be prevalent in the United States regarding a quick upturn now that the Labor Day holiday is out of the way, is not fully shared over here. The current view in London is that, even if there is to be a fourth quarter improvement in America, it is unlikely to be of major dimensions until after the Presidential election. In any case, if production continues unchecked at its present level it is not easy to see a sufficient growth in demand in the next month or two to bring consumption into line with production.

Cutbacks Delayed

Having regard to the views expressed earlier in the year by the chairmen of practically all the major producers, one might have expected early indications of cutbacks in production but for the continuing troubled conditions of the Belgian Congo. This makes it impossible to rely on uninterrupted production in that country. The present danger is that if total consumption does not materially improve and output remains unchanged in Africa and Chile,

delay in announcing output cuts may see prices down lower than producers consider comfortable. Obviously consumer demand in current circumstances is kept down to a minimum although the uncertainties referred to above will probably prevent any undue inroads being made into consumer stocks.

An interesting development during the past month was the announcement that a major fabricating plant is to be set up in New Zealand jointly by Yorkshire Imperial Metals Limited and Imperial Chemical Industries of Australia and New Zealand Limited. This will obviously reduce Britain's export potential in this field and may also be something of a blow to Canadian fabricators. American fabricators, already faced with substantial imports of semis from the U. K. and the Continent of Europe, are reported to be rather worried that any shrinkage in British export markets may result in increased pressure of supplies of British semis in the U. S. A.

Effect of Tin Decision

The most interesting thing in connection with tin during August was the decision by the International Tin Council to remove all restriction on output and exports from October 1st.

U. K. COPPER STATISTICS

The British Bureau of Non-Ferrous Metal Statistics records a drop in U. K. stocks of refined copper in June at 56,257 tons (63,832 tons at the end of May), whereas blister stocks increased during the month from 13,976 tons to 15,134 tons. Of the refined stocks consumers held 29,725 tons (32,691 tons). Production of primary refined in June was 10,464 tons and that of secondary refined 8,611 tons. Consumption showed a moderate improvement over May at 65,398 tons, against 63,659 tons. Details are given below:

—GROSS OUTPUT—

	June 1960	Jan.-June 1960	Jan.-June 1959
Unalloyed Copper Products			
Wire*	26,484	109,532	145,258
Rods, bars and sections	1,936	9,979	10,773
Sheet, strip and plate	5,692	28,863	31,107
Tubes	5,850	31,928	36,204
Castings and misc.	650	3,900	3,900
Alloyed Copper Products			
Wire	1,888	8,689	10,800
Rods, bars and sections	14,431	66,597	84,019
Sheet, strip and plate	9,748	50,026	61,278
Tubes	2,027	10,473	11,585
Castings and misc.	7,379	36,645	43,977
Copper sulphate	3,039	21,232	16,579

Total all products	79,124	377,864	455,480
Copper content of output	65,398	306,424	374,620
Consumption of refined copper†	54,830	231,072	287,337
Consumption of copper and alloy scrap‡ (copper content)	10,568	75,352	87,283

* Consumption of H. C. copper and cadmium copper wire rods for wire and production of wire rods for export.

† Virgin and secondary refined copper.

‡ Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

U. K. TIN STATISTICS

Tin stocks in the U. K. rose during June, according to the British Bureau of Non-Ferrous Metal Statistics, from 10,565 tons to 11,113 tons. Production of primary metal was 2,828 tons against 2,429 tons in May and that of secondary was unchanged at 21 tons. Of the end-June stocks consumers held 1,405 tons (1,444 tons at the end of May). Consumption in June rose to 2,133 tons from 1,902 tons the previous month. Details are given below:

	June 1960	Jan.-June 1960	Jan.-June 1959
Tinplate	1,127	5,073	5,995
Tinning:			
Copper wire	43	283	255
Steel wire	11	53	58
Other	71	390	406
Total	125	726	719
Solder	193	1,081	1,028
Alloys:			
Whitemetal	256	1,494	1,454
Bronze and gunmetal	209	1,018	1,267
Other	36	211	235
Total	501	2,723	2,956
Wrought Tin*			
Foil and sheets	29	167	139
Collapsible tubes	24	114	136
Pipes, wire & capsules	3	21	18
Total	56	302	293
Chemicals and other uses†	131	698	767
Total all trades	2,133	10,603	11,768

* Includes compo and "B" Metal.
† Mainly tin oxide and tin compounds.

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD			ZINC		
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following	Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages	248 17 1	249 17 1	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11	105 17 3	105 9 6
1955 Averages	341 14 1	341 14 1	342 5 6	740 2 12	736 12 11	740 12 8	116 6 5	114 8 9	97 14 3	95 3 7	116 6 5	114 8 9
1956 Averages	328 14 5	324 13 1	329 1 8	787 14 9	774 7 7	788 13 3	96 12 9	96 13 2	81 11 7	80 1 1	96 12 9	96 13 2
1957 Averages	219 8 10	221 0 3	219 12 10	754 15 4	747 10 10	755 3 11	72 15 8	73 6 10	65 17 12	66 10 12	72 15 8	73 6 10
1958 Averages	197 13 3	197 9 3	197 16 11	734 18 6	734 17 11	735 6 1	70 14 5	72 1 10	86 1 5	84 19 10	70 14 5	72 1 10
1959							70 12 5	71 12 2	91 7 4	89 9 2	70 12 5	71 12 2
September	230 7 6	230 8 8	230 10 3	792 15 0	792 6 4	793 0 5	72 2 11	72 7 10	94 18 8	90 3 7	72 2 11	72 7 10
October	241 18 6	242 2 11	242 2 11	794 2 9	794 8 2	794 8 2	72 13 11	72 9 0	95 3 10	90 3 3	72 13 11	72 9 0
November	250 11 8	241 7 7	250 18 1	795 7 5	795 14 6	795 13 4	70 15 7	71 13 9	82 4 8	80 6 4	70 15 7	71 13 9
December	255 8 10	239 15 1	255 14 7	789 3 2	785 6 8	789 11 4	74 15 8	74 10 6	94 11 5	91 14 11	74 15 8	74 10 6
1959 Averages	237 13 1	234 15 7	237 16 8	785 7 10	785 10 0	785 14 2	73 17 6	73 15 6	88 17 2	88 18 5	73 17 6	73 15 6
1960							76 5 4	75 7 4	90 3 2	88 17 12	76 5 4	75 7 4
January	259 5 3	246 8 9	259 12 0	791 7 6	787 11 0	791 14 0	77 10 6	76 11 5	92 8 7	89 15 11	77 10 6	76 11 5
February	263 17 5	245 17 6	264 5 0	792 7 5	790 3 10	792 15 3	77 8 3	76 16 6	92 1 11	91 9 1	77 8 3	76 16 6
March	253 5 4	237 14 10	253 11 4	787 11 0	786 15 0	787 17 10	73 7 6	74 0 8	90 11 11	90 3 10	73 7 6	74 0 8
April	262 2 1	244 15 0	262 8 5	790 11 4	785 5 0	790 18 11	71 4 10	72 0 7	87 8 7	87 9 12	71 4 10	72 0 7
May	248 4 8	243 0 3	248 9 7	785 1 4	784 0 0	785 7 9	70 19 0	71 7 1			70 19 0	71 7 1
June	250 15 0	244 2 6	250 19 3	793 5 0	789 3 4	793 11 5						
July	254 11 7	246 19 5	254 16 11	812 10 3	808 9 9	812 16 8						
August	254 3 2	243 14 7	245 5 11	801 12 3	803 10 3	802 0 11						

The immediate reaction of the market to this was a rather sharp drop in prices but this proved very short lived as there is considerable doubt whether, in fact, world production will be stepped up very much. There is also of course the question of stocks in producing countries. However, apart from Malaya, these apparently do not amount to very much and indications so far are that any liquidation of Malayan stocks is likely to be undertaken in an orderly fashion so as not to disrupt the market. It is expected that there will be some gradual expansion in Malayan production as certain mines and dredges rendered idle by restriction are to be reactivated. This, however, will obviously take time and it has to be remembered that, on the basis of third quarter activities, supplies were running somewhat behind consumption. A great deal must depend on how consumption develops in the next few months, particularly in the United States.

U. K. LEAD STATISTICS

U. K. lead consumption was steadily maintained in June, according to the British Bureau of Non-Ferrous Metal Statistics, amounting to 33,318 tons, compared with 33,459 tons the previous month. Stocks showed no major change, imported refined rising from 37,866 tons to 38,949 tons, while English refined declined marginally from 7,791 tons to 7,593 tons. Production in June of refined lead was 7,378 tons. Details of consumption, showing a substantial improvement for the half year compared with the first half of 1959 are given below:

	June 1960	Jan.-June 1960	Jan.-June 1959
Cables	8,471	48,097	49,728
Batteries — as metal	3,383	14,515	20,690
Battery oxides	2,747	15,266	17,761
Tetraethyl lead	2,279	11,705	12,056
Other oxides and compounds	2,875	13,017	14,885
White lead	656	4,026	4,204
Shot (inc. bullet rod)	528	1,987	2,864
Sheet and pipe	6,732	33,286	37,412
Roll and collapsible tubes	331	1,790	2,207
Other rolled and extruded	913	3,265	4,198
Solder	1,249	7,114	7,955
Alloys	1,690	9,416	10,335
Miscellaneous uses	1,464	6,678	7,682

Total consumption .. 33,318 168,162 191,977
 of which:
 Imported virgin lead .. 86,646 86,646 96,052
 English refined .. 8,642 36,244 46,504
 Scrap including remelted .. 8,030 45,272 49,421

The balance between supply and demand has been a fairly close one recently, and a comparatively small movement of world consumption in either direction might have an appreciable influence on prices. For the moment, following the heavy Straits shipments in July and August, buyers are rather inclined to mark time.

Lead Market Colorless

This has been a rather colorless market in recent weeks with price movements confined within fairly narrow limits. The broad supply/demand position has not varied appreciably, which means that the picture has not been a very bright one; but on the other hand there is obviously a good deal of resistance to any further decline when prices touch £70 a ton. For a time offerings of Spanish lead on the London market disappeared due, it is believed, to a temporary lack of money in the compensation fund in Spain which bridges the gap for producers between the controlled internal price and the world quotation. Just recently, however, further sales of Spanish metal have been reported in London. Meanwhile at the time of writing all eyes are turned towards Geneva where the meeting of the International Lead and Zinc Study Group is due to start officially in a few days time. There is widespread expectation here that the existing restrictions on supplies of lead to the market will be continued for about six months from the end of September. Were it not for this belief prices might well be lower than they are. As, however, it is not anticipated that there will be much expansion in consumption (on a global basis) during that period, it is feared that any prolongation of the supply restrictions will merely postpone a difficult decision and may, in fact, aggravate the problem by allowing producers' unsold stocks to rise further.

Zinc Consumption Slows

There has, perhaps, been some slowing down in U. K. consumption of zinc during the past month or so as a result of the rather quieter conditions in the motor car and consumer durable goods industries, but the movement has so far been slight and with European and Eastern demand remaining at a high level one must look elsewhere for the explanation of the easier trend in London prices recently. Almost certainly the answer lies in the unsatisfactory state of the U. S. domestic market. This, coupled to some extent with the effect of the import quotas, is resultant in a fairly substantial quantity of metal produced by American custom smelters being exported. These offerings — particularly as it looks as if they may persist for the time being — have weakened confidence and durability (Continued on Page 14)

U. K. ZINC STATISTICS

There was little change in U. K. stocks of zinc in June, according to the British Bureau of Non-Ferrous Metal Statistics, the end month total of 52,004 tons, comparing with 52,470 tons at the end of May. Consumers held 20,832 tons (20,601 tons). U. K. primary production was 6,109 tons. Consumption — details of which are given below — continued to make a very good showing with the major gains in brass and die castings.

	June 1960	Jan.-June 1960	Jan.-June 1959
Brass	10,740	52,738	64,152
Galvanizing	9,113	48,289	50,603
Of which:			
General	3,086	16,536	17,679
Sheet	2,281	12,586	12,290
Wire	2,085	10,166	11,538
Tube	1,661	9,001	9,096
Rollled zinc	2,311	12,332	12,832
Zinc oxide	2,575	14,364	13,912
Zinc diecasting and forming alloy	6,098	26,273	34,479
Zinc dust	1,282	5,737	6,834
Miscellaneous uses	939	5,469	5,766
Total all trades	33,058	165,202	188,578
Of which:			
Slab zinc			
High purity (99.99%)	6,678	28,376	37,845
Electrolytic and high grade (99.95%)	6,111	31,376	35,712
G.O.B. and Prime Western and debased	11,931	60,944	67,863
Other virgin material	236	1,251	1,348
Remelted zinc	551	2,831	3,506
Scrap —			
Zinc metal, alloys and residues (Zn content)	3,123	16,539	16,296
Brass and other copper alloys	4,428	23,885	26,008

METALS, SEPTEMBER, 1960

U. S. COPPER MARKET BARELY IN BALANCE; SMELTER PRICE STEADY ON CONGO, CHILEAN UNCERTAINTIES

UN Lead, Zinc Study Group Urges Governments Not to Impose New Barriers to World Trading in Both Metals; Tin Quiet But Steady; Silver Unchanged

September 16, 1960

THE DOMESTIC copper market is having a hard time keeping its balance, what with one eye on the Congo and the other on Chile. Uncertainties in both these areas have contributed toward keeping the producer and custom smelter prices steady at 33.00c a pound despite the rather light volume of business and the lower levels on the London Metal Exchange. Lead and zinc prices also were unchanged with demand on the light side in both cases.

African Situation

The situation in the Congo Republic remained as confused as ever. At this writing it would seem as though the Army was now the dominant factor with President Kasavubu still in favor and with Prime Minister Lumumba apparently on his way out. The new "strong" man, at least for the immediate present, is Col. Joseph Mobutu, who announced he had taken over the reins of the Government until January 1, 1961.

The tin mining town of Manono in Katanga Province has gone up in flames as the result of tribal warfare, and was causing considerable apprehension among the European personnel stationed in the copper-mining city of Jadotville. Thus far, the Katanga copper mines and refining plants have been operating normally and copper shipments were being made without too much difficulty.

Chilean Labor Situation

The latest news from Santiago was to the effect that the union representing the workers at Anaconda's Chuquicamata property had turned down Anaconda's wage formula as being inadequate. Direct negotiations, however, were scheduled to continue daily until September 20. If no agreement is reached by then, the union will seek authorization to call a strike and give the company 10 days' notice, as required by law. Those in close touch with the situation in Chile expressed doubt as to whether a strike can be averted on October 1.

Chuquicamata produces about 21,500 tons of copper a month.

Producers' Dilemma

Some copper producers outside the U. S. were said to be in favor of cut-

ting production before the oversupply situation gets out of hand. But they are somewhat hesitant about doing so in view of the uncertainties in Africa and Chile. Anglo-American Corp. chairman H. F. Oppenheimer declared several months ago that the industry might have to face an excess of production over consumption in the second half of this year. He said that such a situation, if it came about, "would be met by an appropriate reduction in supply by leading producers." Rhodesian Selection Trust chairman Sir Ronald Prain has been an outstanding proponent of keeping production in line with consumption.

In view of the growing imbalance between supply and demand, talk of curtailment of copper output again was very much in the wind. But there was no indication as to who would take the initiative, or when or to what extent.

August Statistics

The consensus in trade circles, concerning the August statistics, was that although world crude output and deliveries appeared to be in balance, nevertheless production is running in excess of actual consumption. Consequently, a cut in output would be advisable. The feeling also prevailed that the August statistics should not be considered as a market criterion. They should be averaged with the July and the September figures for a more accurate market picture, since July and August were vacation months.

World (domestic and foreign) output of refined copper in August was 330,365 tons as against 299,427 tons in July, while world deliveries in August came to 319,337 tons compared with 268,191 tons in the preceding month.

Domestic refined copper figures for August follow in tons, with the July totals in parentheses: output, 157,382 (132,697); deliveries to fabricators, 105,417 (83,788); stocks at end of month, 97,379 (93,102).

While the primary producers and the custom smelters adhered to the 33.00c a pound delivered price, one smelter said that a sale of smelter copper at 33.00c "would be news."

The asking price for electro in the outside market at this writing, was 31.25c. But the only business that came to light was at 31.00c for delivery to points carrying a small freight charge. Custom smelters on September 16 were bidding for scrap copper on the basis of 25.00c for No. 2 heavy copper and wire. Refined copper produced from this scrap and available for marketing within 90 days would be priced at 30.50c a pound or so, when 5.50c is added to the scrap purchase price to allow for refining, handling and other costs.

Brass, Bronze Ingots

Demand and prices for brass and bronze ingots have not showed the expected strength in the third quarter and hand-to-mouth buying in September does not indicate a strong market for the fourth quarter, according to Eugene D. Emigh, Jr., American Hardware Corp., writing in the National Association of Purchasing Agents' bulletin.

On the other hand, Norman Levin, president of the Brass and Bronze Ingot Institute, reported that brass and bronze ingot sales tonnage is holding its own against last year's levels despite the dips faced by steel and aluminum producers.

UN Lead, Zinc Meeting

The United Nations Lead and Zinc Study Group, following a four-day meeting in Geneva, urged governments "not to impose new or additional barriers to international trade" in the two metals. The 23-nation group predicted there would be a surplus 21,000 metric tons of lead this year and 26,000 tons in 1961. The group also estimated the zinc surplus this year at 74,000 tons and 102,000 tons in 1961. Several countries, however, intend to continue the restriction on lead supplies until March 31, 1961.

Lead Demand Fair

Demand for lead was fair, with orders placed for carload shipments in September at the spot price of 12.00c New York.

On September 13, one leading smelter increased its process fee for battery plates by \$5 a ton to \$75 a ton. Other major smelters, which

maintained their smelting charge at \$70, indicated the flow of scrap in their direction was only fair. Consequently, the smelting charge ranged from \$70 to \$75 a ton.

Consuming demand for zinc also was light but the price was firm at 13.00c a pound East St. Louis for the Prime Western grade. The low rate of steel operations was held to be chiefly responsible for the light demand for PW metal.

Zinc Statistics

Statistically, zinc made a better showing in August than it did in July. The August highlights were: a decrease in production of all grades; a gain in shipments and a drop in unsold stocks carried by producers. The drop in production was the result of the strikes at the properties of Bunker Hill and Asarco in the Coeur d'Alene district and the strike at the New Jersey Zinc properties. Their combined output is estimated at 16,000 tons a month. Mattiessen & Hegeler Zinc Co. also closed down its zinc smelting facilities at LaSalle, Ill., on September 12, reflecting an accumulation of inventory. Slab zinc output at LaSalle had been around 1,200 tons a month, since only two of the six furnaces had been operating.

August statistics for zinc (all grades) following in tons, with the July totals in parentheses: output 63,636 (73,754); deliveries to domestic consumers, 62,020 (50,002); stocks at end of month, 202,707 (207,059).

Aluminum Exports

Exports of crude aluminum and aluminum scrap from the U. S. continued at relatively high levels in July although below the June totals, the Commerce Department reported. Crude aluminum exports were 37.2 million pounds against 49.1 million pounds in the preceding month. For the first seven months of this year they came to 360.4 million pounds compared with 81.0 million pounds in the like 1959 period.

July exports of scrap aluminum were 12.5 million pounds, about 6 per cent under June. For the first seven months scrap exports came to 92.3 million pounds as against 27.2 million pounds for the corresponding period of 1959.

Primary producers maintained their prices, based on the 50-pound ingot, 99½ per cent minimum grade, at 26.00c a pound, f.o.b.

Tin Market Quiet

The tin market, with many consumers on the skidlines, presented a quiet appearance. The spot Straits price on September 16 was 102.00c a pound at New York; on August 16

it was 101.875c a pound. The high for the August 16-September 16 period was the 102.75c for September 2, while the low of 101.00c was registered on August 17.

Quicksilver Unchanged

The spot quicksilver price of \$208-\$210 per flask of 76 pounds, the range established on August 16, was unchanged. The market undertone was soft although some factors professed to seeing the slump near an end. Some industry quarters feel the price trend may have been checked and an upward trend will develop. They cited record amounts going into missile and industry controls, and other uses. At the same time, they pointed out, import supplies were tightening and U. S. mine production is off. Some of the domestic mines, meanwhile, are by-passing the market and selling quicksilver directly to consumers at reportedly favorable prices on long-term contracts.

Silver Steady

New York silver was steady at 91.375c an ounce New York. Platinum was unchanged at \$81-\$85 an ounce.

Washington Report

(Continued from Page 8)

and will continue to grow unless action is taken.

"It has become obvious that economic warfare through low prices by friendly countries can be just as harmful and effective as from any other source.

"There are competitive problems within our industry and that is as it should be. We can deal with them because we meet on equal grounds in terms of cost, labor rates and income taxes. We would welcome foreign competition on an equal basis."

Cabell on Nickel Duty

Richard A. Cabell, vice president of International Nickel Company, Inc., urged that the United States totally eliminate or reduce to the maximum extent possible the duty on refined nickel.

Mr. Cabell told the commission:

"My company imports nickel from Canada and sells it to steel mills, foundries, and other metal consumers throughout the country. Under the tariff laws there are three general categories of nickel-containing products. The second category consists of refined metallic nickel in various forms, such as pig, ingots, electrolytic nickel, briquettes, etc.

"This kind of nickel is currently dutiable at 1¼ cents per pound. My company strongly believes that this

duty on refined nickel should be totally eliminated, or reduced to the maximum extent possible.

"We are also convinced that if this was done, it will not cause or threaten any serious injury to a domestic industry producing like or directly competitive products. We therefore ask the commission not to establish any 'peril point' in connection with this duty.

"The reason why a 'peril point' is not needed is that there is no significant domestic industry producing refined metallic nickel.

"Nickel is an essential material needed for both civilian and defense purposes. While the United States is the world's largest nickel consumer, practically all of our nickel requirements are imported. Every other major industrial country of the world—except the United States—lets refined nickel come in duty-free. This means that all American industries which use nickel or nickel alloys are at a competitive disadvantage with foreign producers in this market as well as in world markets because of duties.

"We think it is clear that American consumers of nickel, constituting a substantial part of American industry are being injured by the present nickel duty and that the consumer would be appreciably benefited by its elimination."

British Metal Markets

(Continued from Page 12)

ing the last month prices have lost £3 to £4 a ton. However, the general view here is that the International Study Group will not make any recommendations with regard to zinc supplies at its September meeting. The Board of Trade has announced that it will offer a further 1,600 tons of zinc from its stocks for tender for delivery and pricing from October 1960 to March 1961. After taking this into consideration and the other quantities already committed, and U. K. Government stocks remaining to be disposed of, (which at the beginning of March totaled 53,000 tons) has been whittled down to 7,000 tons, or possibly appreciably less as it is believed that some sales have been made from Government stocks without any public announcement. Accordingly, although it may be a considerable time before all the metal is actually taken up, it seems unlikely that fresh offering from British Government stocks will be a serious market factor in the future.

THE NEW

1960 EDITION

NOW BEING PRINTED

STANDARD METAL DIRECTORY



Price \$15.00

About 800 pages, reference guide for the iron, steel and metal industries, 20,000 detailed reports on steel mills, foundries and smelters — officers — production — capitalization, equipment, capacity, products, raw materials consumed. Special lists of fabricators, stamping plants, metal smelters, scrap dealers, etc. Index of suppliers of steel and metal products.

ORDER YOUR COPY NOW

New 1960 Edition Revised.

STANDARD METAL DIRECTORY

425 West 25th Street

New York 1, N. Y.

Also Publishers of "Waste Trade Journal" and "Daily Metal Reporter"

Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic
B. & M.	Anaconda Copper Mining Co.	Electrolytic
AE	Andes Copper Mining Co.	Electrolytic
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic
C de P Peru	Cerro de Pasco Corporation	Electrolytic
C. C. C.	Chile Copper Company	Electrolytic
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic
K U E	Kennecott Copper Corp.	Electrolytic
L. M. C.	Lewin Metals Corporation	Electrolytic
M U F	Mufulira Copper Mines, Ltd.	Electrolytic
N A	Norddeutsche Affinerie	Electrolytic
O R C	Ontario Refining Co., Ltd.	Electrolytic
A. L. S.	Phelps Dodge Refining Corp. (For Adolph Lewisohn Selling Corp.)	Electrolytic
L. N. S.	Phelps Dodge Refining Corp.	Electrolytic
P * D	Phelps Dodge Corporation	Electrolytic
N. E. C.	Raritan Copper Works	Electrolytic
R E C	Rhokana Corporation	Electrolytic
B O R	Rudnick Bakra i Topionice	Electrolytic
U M K	Union Miniere du Haut Katanga	Electrolytic
D R W	†United States Metals Refining Co.	Electrolytic
AMCO	†United States Metals Refining Co.	Electrolytic
OFHC	†United States Metals Refining Co.	Electrolytic
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic

† Subsidiary, American Metal Climax, Inc.

Brand or Marks	Producer	Grade
C & H	Calumet & Hecla Consolidated Copper Co.	Lake
C. R.	Copper Range Company	Lake
Q. M. CO.	Quincy Mining Company	Lake
Brand or Marks	Producer	Grade
B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
A M CO	United States Metals Refining Company	Fire Refined High Conductivity
R H C		
Brand or Marks	Producer	Grade
*** (3 Star)	Braden Copper Company	Fire Refined (other than Lake & Fire Refined High Conductivity)
K C M	Kennecott Copper Corporation	
M T D	Messina (Transvaal) Development Co.	
P. D. M.	Phelps Dodge Corporation	
R	†United States Metals Refining Company	

Official List of Approved Refiners Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.	Mufulira Copper Mines, Ltd.
Anaconda Copper Mining Co.	Norddeutsche Affinerie
Andes Copper Mining Co.	Ontario Refining Co., Ltd.
Bolidens-Gruvaktiebolag	Phelps Dodge Refining Corp.
Canadian Copper Refiners, Ltd.	Phelps Dodge Corporation
Cerro de Pasco Copper Corp.	Raritan Copper Works
Chile Copper Company	Rhokana Corporation
Consolidated Mining & Smelting Co.	Rudnick Bakra i Topionice
Falconbridge Nickel Mines, Ltd.	Union Miniere du Haut Katanga
Kennecott Copper Corp.	United States Metals Refining Co.
Lewin Metals Corp.	Zinnwerke Wilhelmsburg G.m.b.H.

Lead Brands

Refined At	Producer	Brand Mark
Federal, Ill., U. S.	American Smelting & Refining Co.	*ALTON
Carteret, N. J., U. S.	United States Metals Refining Co.	**A M CO
Monterrey, Mexico	American Smelting & Refining Co.	*ASARCO MONTERREY
Port Pirie, Australia	Broken Hill Associated Smelters	*B.H.A.S.
Indianapolis, Ind., U. S.	National Lead Co., American Lead Plant	†BLUE ARROW AMERICAN LEAD CORP.
Braubach a/Rhein, Germany	Blei-und Silberhutte Braubach	*Braubach dopp. raff. Deutschland
Idaho, U. S.	Bunker Hill Smelter	*BUNKER "C" HILL
Orya, Peru	Cerro de Pasco Copper Corp.	*CERRO PERU
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†CHEMICAL ST. L. S. & R. CO.
Monterrey, N. L., Mexico	Compania Metalurgica Penoles, S.A.	**C.M.F. y A.M.
Alton, Ill., U. S.	St. Joseph Lead Company	*DOE RUN
Oker, Germany	Unterharzer Berg- und Huttenwerke	*HARZ 99.985, HARZ 99.9
Joplin, Mo., U. S.	Eagle-Picher Mining & Smelting Co.	*EAGLE-PICHER
Kamioka, Japan	Mitsui Mining Co.	*E.M.K.
Stolberg, Rhineland, Germany	Stolberger Zinc Aktiengesellschaft fur Bergbau und Huttenbetrieb	*Eschweiler raffine
Federal, Ill., U. S.	American Smelting & Refining Co.	*FEDERAL
Chicago, Ill., U. S.	Goldsmith Bros. Smelting & Refining Co.	†G B
Hoboken, Belgium	Societe Generale Metallurgique de Hoboken	*H.E.R. Escaut
Alton, Ill., U. S.	St. Joseph Lead Company	*HERCULANEUM
Omaha, Neb., U. S.	International Smelting & Refining Co.	*ILR
Monteponi, Italy	Lewin-Mathes Co.	†MONSANTO
San Gavino Monreale, Sardinia, Italy	Societa di Monteponi	*Monteponi
Hammond, Ind., U. S.	Montevecchio Societa Italiana del Piombo e dello Zinco	*Montevecchio
Omaha, Neb., U. S.	Metals Refining Company	†M R CO METALS REFINING CO.
Overpelt, Belgium	American Smelting & Refining Co.	*OMAHA & GRANT
Megrine, Tunisia	Compagnie des Metaux d-Overpelt-Lommel et de Corphalie, S.A.	*Overpelt extra-raffine O.V.-L.L.-Dur.
Penarroja, Sopwith & Cartagena, Spain	Ste. Min. & Metall. de Penarroja	*Penarroja
Perth Amboy, N. J., U. S.	Ete Min. & Met. de Penarroja	*Penarroja
Genoa, Italy	American Smelting & Refining Co.	*PERTH AMBOY
Alton, Ill., U. S.	Societa di Pertusola	*Pertusola
Collinsville, Ill., U. S.	St. Joseph Lead Company	*ST. JOE
Selby, Calif., U. S.	St. Louis Smelting & Refining Co.	†ST. L. S. & R. CO.
Trail, B. C., Canada	American Smelting & Refining Co.	*SELBY
Baelen-Usines, Belgium	Consolidated Mining & Smelting Co. of Canada, Ltd.	*TADANAC
Mexico, Yugoslavia	Ste. des Mines and Foundries de Zinc de la Vieille-Montagne Anglem	*Three Stars Vieille-Montagne Bar
Perth Amboy, N. J., U. S.	Central European Mines, Limited	*TRECA
Hoboken, Belgium	American Smelting & Refining Co.	*TSUMCO
Midvale, Utah, U. S.	The Taumeb Corporation	*TSUMCO
E. Chicago, Ind., U. S.	United States Smelting, Refining & Mining Company	*USS CO
Norfolk, Va., U. S.	United States Smelting, Refining & Mining Company	†U S CO ELECTRO
Staten Island, N. Y., U. S. A.	Virginia Lead Smelting Corp., The	*VIRGINIA
Newark, N. J., U. S. A.	Nassau Smelting & Refining Co.	Nassau Blue
Philadelphia, Pa., U. S. A.	Hudson Smelting & Refining Co.	Hudson
	Bers & Co., Inc.	Schuykill

*Deliverable against: Commodity Exchange, Inc., Lead Contracts without Certificate of Assay.

**Subsidiary of American Metal Climax, Inc.

†Deliverable against Commodity Exchange, Inc., Lead Contracts with Certificate of Assay of one of the Official Assayers of the Exchange.

Subsidiary of National Lead Co.

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1957, Under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE — The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. The tax was restored July 1, 1958. The 1956 Geneva Agreement provided for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the prices were above 24c; if the price is below 24c the 2c tax will prevail.

Copper ore and concentrates, usable as flux, etc., having a copper content of not more than 15% and in an aggregate amount not to exceed in any one year 15,000 tons of copper content	free
Copper ore and concentrates, product of Cuba, copper content	free
Copper ore and concentrates, product of Philippines, copper content	0.17c lb.
Copper ore and concentrates, copper content	1.70c lb.
Regulus, black, or coarse copper, and cement copper, copper content	1.70c lb.
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	1.70c lb.
Refined copper in ingots, plates or bars, copper content	1.70c lb.
Copper rolls, rods or sheets	1 1/4c lb.
	(plus 1.70c lb. ††)
Copper seamless tubes and tubing	3 1/2c lb.
	(plus 1.70c lb. ††)
Copper plain wire	12 1/2% (plus 1.70c lb. ††)
Copper brazed tubes†	4.50c lb. (plus 1.70c lb. ††)
Old and scrap copper, fit only for remanufacture: and scale and clippings, copper content	1.70c lb.

†† Copper content.

BRASS

Brass rods, sheets, plates, bars, strips, Muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12 1/2%

LEAD

NOTE — Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended February 12, 1952, and reimposed on June 28, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	3/4c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheets, shot, glaziers' lead, and wire	5 1/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1 1/4c lb.
Red lead	15 1/16c lb.
Orange mineral	1c lb.

ZINC

NOTE — Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended February 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	3/4c lb.
Dross and skimmings	3/4c lb.
Zinc in blocks, pigs or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1 1/4c lb.

Zinc dust	7/10c lb.
Zinc die-casting alloys	12 1/2%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for†	1.25c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc.†	2.50c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb.
Antimony needle or liquidated	1/4c lb.
Antimony oxide	1c lb.
Antimony sulphides	1/2c lb. & 12 1/2%
Arsenic, metallic†	2.50c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined**	1/4c lb.
Bismuth	1 1/2%
Bismuth salts and compounds	35%
Beryllium metal†	21%
Beryllium ore	free
Cadmium	3 3/4c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Chrome or chromium metal†	10 1/2%
Cobalt metal	free
Cobalt ore and concentrates, cobalt content	free
Magnesium, metallic†	50%
Magnesium powder, sheets, wire†	17c lb. & 8 1/2%
Magnesium alloys	20c lb. & 10%
Magnesium scrap	free
Manganese ores, containing over 10% manganese, manganese content	1/4c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content†	30c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1 1/4c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12 1/2%
Nickel scrap	free
Nickel tubes, tubing (if cold rolled, drawn or worked — 2 1/2% extra)	6 1/4%
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than 1/8 in. thick, oz. troy	free
Platinum, ores, platinum content, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12 1/2%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

*Crude bauxite import duty suspended through July 15, 1949. **Under Public Law 25 alumina imported for use in aluminum production is free for entries from July 17, 1954 through July 15, 1949. †Tariff reduced 5% on June 30, 1954, under Geneva Agreement which expires on June 30, 1959.

Daily Metal Quotations for August, 1960

The following quotations are taken from the Daily Metal Reporter*
(In Cents Per Pound)

	Copper				Tin		Lead		Zinc			Alumi- num†	Anti- mony	Silver			
	Producers' Price	Custom Smelters', Del.	Electro f. o. b. Refinery	Lake Del.	Aver. Prompt Export Price f. a. s. N. Y.	Spot	Prompt	New York	Outside St. Louis	Prime West. f. o. b. St. Louis	Prime West. Del. N. Y.	Brass Spec. f. o. b. St. Louis	High Grade Delivered	Spec. High Grade Delivered	50-lb. Ingot 99½% Min. f. o. b.	Domestic Spot 99.5% f. o. b. Laredo	Antimony (Cents Per Ounce)
1 AUGUST	33.00	33.00	32.60	33.00	31.00	104.625	104.625	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
2	33.00	33.00	32.60	33.00	31.00	104.50	104.50	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
3	33.00	33.00	32.60	33.00	31.00	104.375	104.375	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
4	33.00	33.00	32.60	33.00	31.00	104.375	104.375	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
5	33.00	33.00	32.60	33.00	31.00	104.00	104.00	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
8	33.00	33.00	32.60	33.00	31.188	103.625	103.625	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
9	33.00	33.00	32.60	33.00	31.188	103.75	103.75	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
10	33.00	33.00	32.60	33.00	31.00	103.75	103.75	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
11	33.00	33.00	32.60	33.00	31.00	103.50	103.50	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
12	33.00	33.00	32.60	33.00	31.00	103.125	103.125	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
15	33.00	33.00	32.60	33.00	31.00	102.375	102.375	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
16	33.00	33.00	32.60	33.00	31.00	101.875	101.875	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
17	33.00	33.00	32.60	33.00	30.625	102.00	102.00	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
18	33.00	33.00	32.60	33.00	30.625	101.875	101.875	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
19	33.00	33.00	32.60	33.00	30.625	101.00	101.00	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
22	33.00	33.00	32.60	33.00	30.625	101.625	101.625	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
23	33.00	33.00	32.60	33.00	30.625	102.125	102.125	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
24	33.00	33.00	32.60	33.00	30.625	102.50	102.50	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
25	33.00	33.00	32.60	33.00	30.50	102.375	102.375	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
26	33.00	33.00	32.60	33.00	30.50	101.875	101.875	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
29	33.00	33.00	32.60	33.00	30.25	102.25	102.25	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
30	33.00	33.00	32.60	33.00	30.25	102.25	102.125	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
31	33.00	33.00	32.60	33.00	30.00	102.125	102.00	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
AV.	33.00	33.00	32.60	33.00	30.777	102.864	102.853	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
HL	33.00	33.00	32.60	33.00	31.25	104.625	104.625	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375
LO.	33.00	33.00	32.60	33.00	30.00	101.00	101.00	12.00	11.80	13.00	13.50	13.25	14.35	14.50	26.00	29.00	91.375

* When split quotations prevail the daily average price is listed. The highs and lows for the month take into consideration the levels reached at both sides of such ranges.
† Price prior to August 1, 1960, was 28.10¢, based on 30-lb ingot, 99 1/2% plus.

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

	Crude Production		(In tons of 2,000 pounds)			Stock Increases or Decreases		
	Primary	Secondary	Refined Production	Deliveries to Customers	Refined Stock End of Period	Blister	Refined	Total
1957								
Total	2,897,719	123,270	3,035,588	2,853,307	458,340	-14,599	+103,920	+89,321
1958								
Total	2,713,412	138,696	2,811,108	2,918,404	262,544	+41,000	-195,796	-154,796
1959								
October	184,409	10,955	181,707	210,945	330,438	+13,657	-26,176	-12,519
November	192,353	10,631	186,496	229,281	311,049	+16,388	-19,389	-3,001
December	211,575	9,767	203,614	238,095	293,006	+17,728	-18,043	-315
Total	2,860,454	134,583	2,926,657	2,973,026	293,006	+68,380	+28,774	+97,154
1960								
January**	259,779	13,116	257,614	272,040	304,038	+15,278	-3,426	+11,852
February	271,765	14,578	269,952	280,656	302,351	+16,391	-1,687	+14,704
March	307,064	12,198	303,503	307,572	300,790	+15,759	-1,561	+14,198
April	302,268	17,477	326,403	319,037	309,357	-6,658	+8,567	+1,909
May	301,070	17,248	323,167	321,783	312,666	-4,849	+3,309	-1,540
June	302,703	16,786	299,518	305,964	338,202	-10,029	+25,536	+15,507
July	294,052	13,584	299,427	268,191	371,306	+8,209	+33,104	+41,313
August	294,065	16,034	330,365	319,337	383,305	-20,266	+11,999	-8,267

In U. S. A.

1957								
Total	1,116,380	112,060	1,616,964	1,277,946	181,024	.....	+60,379	.....
1958								
Total	1,008,170	131,294	1,446,540	1,179,416	80,722	.....	-100,302	.....
1959								
				(Oct. 1)	81,514			
October	20,931	9,861	44,218	68,648	78,308	.....	-3,206	.....
November	18,351	9,710	37,299	83,626	74,642	.....	-3,666	.....
December	26,686	8,595	46,302	90,039	64,763	.....	-9,879	.....
Total	805,875	121,462	1,221,612	1,312,328	64,763	.....	-17,647	.....
1960								
January	65,677	10,707	86,491	102,829	68,550	.....	+3,787	.....
February	85,899	12,628	105,417	111,851	64,007	.....	-4,543	.....
March	107,514	9,166	131,308	126,776	61,598	.....	-2,409	.....
April	104,895	14,765	153,053	129,663	63,373	.....	+1,775	.....
May	104,272	13,857	147,050	108,266	65,328	.....	+1,995	.....
June	95,522	13,585	161,073	106,207	87,667	.....	+22,339	.....
July	91,238	10,822	132,697	83,788	93,102	.....	+5,435	.....
August	84,571	13,613	157,382	105,417	97,379	.....	+4,277	.....

Outside U. S. A.*

1957								
Total	1,781,339	11,210	1,418,624	1,575,361	277,316	.....	+43,541	.....
1958								
Total	1,705,242	7,402	1,364,568	1,738,988	181,822	.....	-95,494	.....
1959								
November	173,902	921	149,197	145,655	236,407	.....	-15,723	.....
December	184,889	1,172	157,312	148,056	228,243	.....	-8,164	.....
Total	2,054,579	13,121	1,705,045	1,660,698	228,243	.....	+46,421	.....
1960								
January**	194,099	2,409	171,123	169,211	235,488	.....	-7,213	.....
February	185,866	1,950	164,535	168,805	238,344	.....	+2,856	.....
March	199,550	3,023	172,145	180,796	239,192	.....	+848	.....
April	197,373	2,712	173,350	189,374	245,984	.....	+6792	.....
May	195,278	3,391	174,298	210,868	247,338	.....	+1,354	.....
June	207,181	3,201	168,445	199,757	250,535	.....	+3,197	.....
July	202,814	2,762	166,730	184,403	278,204	.....	+27,669	.....
August	209,494	2,421	172,983	213,920	285,926	.....	+7,722	.....

* Excludes production of Russia, Japan, Yugoslavia, Norway, Sweden, Finland, the Messina Mine in Transvaal and output of several other small producing countries from which reports are not available. Represents approximately 90 per cent of Free World.

** Starting with January, 1960, figures include production from Australia and additional production from Europe.

Electrolytic Copper

	Producers' Price, Del. Valley			
	Monthly Average Prices			
	1957	1958	1959	1960
Jan.	36.00	25.69	29.00	33.00
Feb.	33.318	25.00	29.972	33.00
Mar.	32.00	25.00	31.14	33.00
Apr.	32.00	25.00	31.50	33.00
May	32.00	25.00	31.50	33.00
June	30.955	25.36	31.50	33.00
July	29.25	26.125	30.587	33.00
Aug.	28.639	26.50	30.00	33.00
Sept.	27.031	26.50	30.571	...
Oct.	27.00	27.548	30.75	...
Nov.	27.00	29.00	32.375	...
Dec.	27.00	29.00	33.00	...
Aver.	30.183	26.31	30.991	...

METALS, SEPTEMBER, 1960

Electrolytic Copper

	Custom Smelters' Price, Del. Valley			
	Monthly Average Prices			
	1957	1958	1959	1960
Jan.	34.87	24.577	29.429	35.00
Feb.	32.273	23.557	30.361	35.00
Mar.	30.952	23.326	33.31	33.609
Apr.	31.24	23.66	32.84	33.00
May	30.163	23.865	32.00	33.00
June	29.60	25.52	31.477	33.00
July	28.39	29.231	29.52	33.00
Aug.	27.862	26.52	30.056	33.00
Sept.	25.948	26.355	33.00	...
Oct.	25.722	28.577	33.00	...
Nov.	25.435	29.829	Nom.	...
Dec.	25.26	28.846	35.00	...
Aver.	28.93	25.905	31.808	...

Lake Copper

	Producers' Price Delivered			
	Monthly Average Prices			
	1957	1958	1959	1960
Jan.	36.00	25.69	29.00	33.00
Feb.	33.182	25.00	30.00	33.00
Mar.	32.00	25.00	31.14	33.00
Apr.	32.00	25.00	31.50	33.00
May	32.00	25.00	31.50	33.00
June	30.955	25.00	31.50	33.00
July	29.25	25.75	30.587	33.00
Aug.	28.611	26.50	30.00	33.00
Sept.	27.00	26.50	31.107	...
Oct.	27.00	27.577	31.50	...
Nov.	27.00	29.00	32.833	...
Dec.	27.00	29.00	33.00	...
Aver.	30.162	26.251	31.222	...

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consumed by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1954						
Total	360,526	58,125	304,619	136,581	1,231,840	— 22,549
1955						
Total	.....	.....	.....	.....	1,418,241	.....
1956						
Total	.....	.....	.....	.....	1,416,378	.....
1957						
Sept.	425,168	80,436	344,530	144,538	106,927	+ 16,536
Oct.	420,130	80,774	341,869	138,420	119,161	+ 20,615
Nov.	428,520	68,249	345,832	128,719	98,725	+ 22,218
Dec.	430,171	75,627	347,465	138,631	83,067	+ 19,702
Total	.....	.....	.....	.....	1,279,086	.....
1958						
Jan.	445,514	57,917	348,426	123,756	94,642	+ 31,249
Feb.	452,673	52,342	351,035	128,330	86,625	+ 25,650
Mar.	448,125	71,693	346,875	141,387	83,694	+ 31,556
Apr.	450,442	76,602	347,607	145,623	79,613	+ 33,814
May	441,001	78,194	346,404	138,190	88,447	+ 34,601
June	433,526	72,383	330,301	145,162	109,011	+ 30,448
July	431,796	77,362	326,263	153,529	79,353	+ 29,366
Aug.	421,931	78,194	323,667	150,436	96,717	+ 26,022
Sept.	416,887	71,025	319,281	145,390	105,474	+ 28,941
Oct.	399,113	91,019	315,929	156,692	138,017	+ 17,511
Nov.	419,914	88,580	328,238	157,799	110,487	+ 22,457
Dec.	447,123	90,401	326,438	177,869	92,573	+ 35,217
Total	.....	.....	.....	.....	1,165,364	.....
1959						
Jan.	457,387	101,182	337,761	172,698	108,556	+ 44,070
Feb.	459,046	123,321	390,522	183,113	116,565	+ 58,732
Mar.	449,441	130,785	334,904	211,547	133,259	+ 33,775
Apr.	463,582	125,250	337,282	204,618	120,680	+ 46,932
May	474,657	133,694	338,835	210,424	124,600	+ 59,092
June	492,072	111,229	343,585	191,875	133,702	+ 67,841
July	518,699	110,367	357,474	193,338	81,500	+ 68,254
Aug.	487,259	97,786	359,049	191,476	121,563	+ 34,520
Sept.	462,880	111,675	360,760	206,254	116,880	+ 7,541
Oct.	431,612	119,806	347,136	211,359	100,302	+ 7,077
Nov.	412,401	127,162	338,856	224,442	102,837	+ 23,735
Dec.	414,757	130,324	340,349	202,775	88,706	+ 1,957
Total	.....	.....	.....	.....	1,347,610	.....
1960						
Jan.	414,652	141,860	340,233	193,300	102,295	+ 22,979
Feb.	423,131	132,696	343,196	165,991	103,072	+ 46,640
Mar.	441,026	119,963	348,081	134,461	108,881	+ 78,447
Apr.	457,070	99,814	357,711	111,062	113,619	+ 88,111
May	457,644	85,491	360,770	117,150	107,838	+ 65,215
June	451,982	90,527	364,301	132,070	112,223	+ 46,138
July	459,871	87,798	372,186	126,674	75,399	+ 48,809

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	6,640	4,525	6,486	9,859	11,047	14,322	17,506	16,024	14,511	15,165
Feb.	5,153	5,337	8,400	10,337	11,198	14,497	17,145	19,514	14,712	14,614
Mar.	7,912	5,243	10,991	9,738	12,198	15,921	12,954	11,783	19,522	11,676
Apr.	8,553	6,214	16,583	9,004	13,162	17,233	14,288	15,279	17,825	17,643
May	8,458	8,033	10,857	8,687	15,133	20,805	12,397	13,989	13,960	16,497
June	8,628	4,425	10,945	13,309	14,765	14,758	11,949	13,945	15,065	15,769
July	6,642	5,188	9,063	10,260	9,988	12,632	8,926	12,185	11,144	12,609
Aug.	6,113	5,093	7,137	10,100	12,197	12,510	11,645	11,896	7,468	.....
Sept.	3,561	4,667	9,042	10,641	15,037	9,518	9,756	9,268	10,070	.....
Oct.	3,336	4,602	10,065	11,662	12,897	15,570	13,151	23,088	12,860	.....
Nov.	3,179	4,724	7,815	10,879	9,865	11,369	11,146	16,425	11,773	.....
Dec.	4,538	6,208	11,476	14,876	15,180	14,613	11,237	10,796	10,894	.....
Total	71,812	62,470	129,798	127,449	154,714	173,748	147,080	164,196	159,507	.....

* As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments

(NET TONS)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	18,774	28,416	28,315	23,423	20,661	25,201	27,736	25,681	20,468	22,046	22,695
Feb.	18,487	27,168	24,211	25,429	19,920	25,349	24,949	20,769	17,413	23,746	23,129
Mar.	22,494	31,997	23,890	28,258	23,653	29,713	28,310	21,948	18,825	26,109	23,232
Apr.	22,118	30,473	22,547	25,044	24,746	27,641	25,808	23,507	18,009	26,115	20,413
June	25,093	33,817	21,274	20,818	22,348	23,141	18,842	18,888	17,962	22,922	19,625
July	21,609	32,916	18,947	19,321	17,074	18,513	17,354	16,695	16,658	20,346	14,587
Aug.	29,689	25,255	21,807	20,156	21,684	27,013	23,812	19,654	17,862	21,741	.....
Sept.	28,811	22,285	22,770	21,463	22,464	26,349	20,929	19,670	20,540	22,685	.....
Oct.	32,240	23,124	25,811	22,280	24,080	25,228	23,045	22,800	23,225	23,067	.....
Nov.	31,748	23,544	23,441	21,806	23,061	25,102	21,818	19,767	20,758	22,283	.....
Dec.	28,875	20,987	22,988	20,641	21,274	21,448	18,046	16,875	18,676	19,535	.....
Total	303,563	332,378	277,736	271,251	263,233	298,406	274,096	248,297	227,607	274,562	.....
Aver.	25,297	27,615	23,145	22,694	21,936	24,867	22,841	20,681	18,133	22,864	.....

Mine Production of Copper in United States

	(U. S. Bureau of Mines) (In short tons)			Total
	Eastern	Missouri	Western	
1957				
Ttl.	79,369	1,800	995,753	1,076,922
1958				
Dec.	6,614	70	88,070	94,514
Ttl.	76,849	1,250	902,021	980,304
1959				
Feb.	5,883	130	81,849	87,862
Mar.	6,513	140	91,681	98,334
Apr.	7,240	150	93,209	100,599
May	7,007	110	94,493	101,610
June	7,245	124	87,035	94,404
July	6,763	111	80,058	86,932
Aug.	6,813	116	47,910	54,839
Sept.	6,655	123	20,342	27,120
Oct.	7,092	152	22,669	29,913
Nov.	3,226	140	22,529	25,895
Dec.	3,228	128	22,504	25,860
Ttl.	74,255	1,550	754,630	830,435
1960				
Jan.	3,904	107	43,845	47,856
Feb.	3,819	114	71,257	75,190
Mar.	7,229	96	88,931	96,256
Apr.	7,149	97	90,288	97,534
May	7,530	77	91,152	98,759
June	7,296	97	88,208	95,601

Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1958				
Aver.	21.788	20.282	18.035	18.047
1959				
July	25.14	23.64	21.39	23.14
Aug.	25.762	24.762	22.012	23.762
Sept.	26.369	24.869	22.319	24.369
Oct.	27.929	25.405	23.155	24.905
Nov.	30.00	26.208	23.958	24.528
Dec.	29.50	25.993	23.743	24.239
Av.	27.321	25.377	23.102	24.774
1960				
Jan.	30.025	26.30	24.05	24.55
Feb.	29.868	25.75	23.50	24.00
Mar.	27.207	24.038	21.788	22.071
Apr.	27.063	24.256	22.006	22.256
May	26.548	24.369	22.119	22.368
June	26.557	24.455	22.205	22.455
July	27.575	25.075	22.825	23.075
Aug.	27.962	25.81	23.56	23.81

*Of dry content for material having a dry copper content in excess of 80%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)
(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1958				
Aver.	21.777	20.277	18.653	13.024
1959				
July	25.14	23.64	20.13	14.47
Aug.	25.762	24.262	21.286	14.81
Sept.	26.369	24.869	22.304	16.50
Oct.	27.595	25.405	22.19	16.048
Nov.	29.00	26.208	22.75	16.326
Dec.	28.50	25.993	22.50	16.00
Av.	27.120	25.377	21.567	15.52
1960				
Jan.	29.025	26.30	22.74	16.39
Feb.	28.408	25.75	22.00	16.00
Mar.	27.321	24.038	20.429	15.174
Apr.	27.063	24.256	20.613	15.15
May	26.548	24.369	20.613	15.083
June	26.715	24.455	20.25	15.193
July	27.375	25.075	21.075	15.875
Aug.	27.712	25.81	21.679	15.951

METALS, SEPTEMBER, 1960

Lead Statistics Reported by American Bureau of Metal Statistics

Lead Refineries in U. S. A. and Outside U. S. A.

(Recoverable Lead Content in Tons of 2,000 Pounds)

Combined U. S. A. and Outside U. S. A.

	REFINED PRODUCTION			DELIVERIES			STOCKS		
	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total
1958 Total ..	1,485,282	106,383	1,591,665	1,307,390	102,697	1,410,087	.....	.....	.....
1959 Total ..	1,406,485	105,943	1,512,418	1,422,985	106,666	1,529,651	.....	.....	.....
1960 Jan. ..	131,753	9,395	141,148	124,705	7,413	132,118	*281,530	*20,280	301,810
Feb. ..	127,595	8,977	136,572	121,803	9,539	131,342	287,322	19,719	307,041
Mar. ..	128,203	8,490	136,693	122,013	8,327	130,340	293,512	19,882	313,394
Apr. ..	137,979	7,574	145,553	107,128	7,691	114,819	324,400	19,765	344,165
May ..	130,426	11,126	141,552	125,126	8,556	133,682	329,700	22,335	352,035
June ..	117,093	8,181	125,274	113,103	9,361	122,464	333,690	21,155	354,845
July ..	117,057	8,802	125,859	105,089	6,699	111,788	345,658	23,258	368,916

U. S. A.

1958 Total ..	473,208	46,985	520,193	589,528	49,893	639,421	.....	.....	.....
1959 Total ..	343,726	34,628	378,354	596,214	42,312	638,526	.....	.....	.....
1960 Jan. ..	37,497	2,414	39,911	49,498	2,304	51,802	156,215	12,257	168,472
Feb. ..	33,742	2,570	36,312	56,569	2,659	59,228	152,299	12,464	164,763
Mar. ..	35,018	2,070	37,088	40,536	2,289	42,825	158,023	12,399	170,422
Apr. ..	37,465	2,186	39,651	36,572	2,267	38,839	164,875	12,514	177,389
May ..	33,474	3,296	36,770	47,433	2,664	50,097	170,208	13,426	183,634
June ..	31,188	2,094	33,282	46,753	2,921	49,674	169,879	12,837	182,716
July ..	26,906	2,227	29,133	34,595	2,003	36,598	171,825	13,328	185,153

Outside U. S. A.

1958 Total ..	1,012,074	59,398	1,071,472	717,862	52,804	770,666	.....	.....	.....
1959 Total ..	1,062,759	71,315	1,134,074	826,771	64,453	891,225	.....	.....	.....
1960 Jan. ..	94,256	6,981	101,237	75,207	5,109	80,316	*125,315	*8,023	133,338
Feb. ..	93,853	6,407	100,260	65,234	6,880	72,114	135,023	7,255	142,278
Mar. ..	93,185	6,420	99,605	81,477	6,038	87,515	135,489	7,483	142,972
Apr. ..	100,514	5,388	105,902	70,556	5,424	75,980	159,525	7,251	166,776
May ..	96,952	7,830	104,782	77,693	5,892	83,585	159,492	8,909	168,401
June ..	85,905	6,087	91,992	66,350	6,440	72,790	163,811	8,318	172,129
July ..	90,151	6,575	96,726	70,494	4,696	75,190	173,833	9,930	183,763

* Stocks on Jan. 1, 1960 are not comparable to those reported for Dec. 31, 1959 due to changes in the basis by reporting areas.

Summary of Lead Statistics for United States

Recoverable Lead Content In Tons of 2000 Pounds	Raw Material at Smelter	Stocks (end of period)				Smelter Receipts			
		Base Bullion	At Smelter & Transit	At Refinery and Process	Refined Pig and Antimonial	Total	Primary Origin U.S.A.	Outside U.S.A.	Scrap
1958 Total ..	.....	.....	.....	.....	.....	.....	297,687	191,415	29,080
1959 Total ..	.....	.....	.....	.....	.....	.....	244,803	125,100	20,596
1960 January ..	78,131	4,003	37,013	168,472	287,619	21,094	26,442	1,900	49,436
February ..	86,087	2,680	36,748	164,763	290,278	24,719	15,822	2,136	42,677
March ..	93,108	5,029	36,866	170,422	305,425	29,979	17,105	2,128	49,212
April ..	89,421	3,639	39,950	177,389	310,399	27,863	9,264	2,207	39,334
May ..	98,470	4,402	36,979	183,634	323,485	22,537	17,959	2,048	42,544
June ..	95,364	5,210	39,928	182,716	323,218	20,895	11,717	1,337	33,949
July ..	93,153	5,254	45,446	185,153	328,986	19,466	11,957	1,285	32,708
1958 Total ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
1959 Total ..	.....	.....	.....	.....	.....	.....	.....	.....	.....
1960 January ..	40,593	37,497	2,414	39,911	49,498	2,304	51,802	12,257	168,472
February ..	34,326	33,742	2,570	36,312	56,569	2,659	59,228	12,464	164,763
March ..	41,673	35,018	2,070	37,088	40,536	2,289	42,825	12,399	170,422
April ..	42,436	37,465	2,186	39,651	36,572	2,267	38,839	12,514	177,389
May ..	33,106	33,474	3,296	36,770	47,433	2,664	50,097	13,426	183,634
June ..	36,525	31,188	2,094	33,282	46,753	2,921	49,674	12,837	182,716
July ..	34,457	26,906	2,227	29,133	34,595	2,003	36,598	13,328	185,153

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1954	81,152	551,618	632,770	92,719	475,551
1955	28,855	547,153	639,872	31,089	531,339
1956		613,293	644,382		529,484
1957		604,353	645,534		463,060
1958					
December	179,321	44,042	223,363	198,538	24,852
Total		522,958	614,554		380,359
1959					
January	198,508	43,652	242,160	208,874	33,035
February	208,874	39,498	248,372	214,946	30,685
March	214,946	39,238	254,184	210,524	40,980
April	210,524	40,606	251,130	197,823	52,469
May	197,823	39,101	236,924	171,577	65,207
June	171,577	37,459	209,036	133,235	75,465
July	133,235	32,882	166,117	142,694	22,380
August	142,694	25,589	168,283	124,259	43,850
September	124,259	14,801	139,060	117,296	21,795
October	117,296	18,892	136,188	115,418	20,552
November	115,418	18,796	134,214	114,303	19,869
December	114,303	30,160	144,463	119,993	24,516
Total		380,674	579,182		450,983
1960					
January	119,993	40,043	160,036	117,589	42,083
February	117,589	36,435	154,024	116,269	37,599
March	116,269	37,192	153,461	109,148	44,076
April	109,148	40,177	149,325	118,329	30,686
May	118,329	36,509	154,838	123,148	31,690
June	123,148	33,448	156,596	129,859	26,725
July	129,859	29,270	159,129	135,858	23,169

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

	(American Bureau of Metal Statistics)				(In tons of 2,000 lbs.)			
	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1955								
Total	72,418	27,599	2,622	88,461	3,960	52,994	13,084	270,251
1956								
Total	80,360	24,501	1,435	70,614	3,158	56,851	13,213	274,716
1957								
Total	58,444	25,452	1,691	64,761	7,420	53,284	11,127	240,881
1958								
Mar.	3,133	1,200	35	4,711	681	3,149	908	15,068
April	3,207	900	70	3,138	580	2,831	533	10,913
May	3,216	1,850	35	4,871	866	3,071	1,027	15,285
June	3,463	1,950	35	2,767	480	4,217	1,716	17,450
July	3,169	1,250	275	3,936	515	4,157	1,052	17,594
Aug.	3,481	2,415	70	4,992	400	6,399	100	16,397
Sept.	4,132	2,290	320	5,775	848	6,771	1,747	19,774
Oct.	3,243	2,450		4,548	285	6,210	1,641	28,270
Nov.	3,690	2,150	50	6,527	360	4,887	822	12,105
Dec.	2,267	2,100	50	6,216	215	2,578	652	10,774
Total	38,838	20,855	1,080	57,180	5,841	51,086	11,882	193,592
1959								
Jan.	2,284	2,100	100	5,594	161	3,545	727	18,524
Feb.	2,988	1,225	50	5,254	735	2,706	931	16,796
Mar.	3,156	1,850	105	5,905	378	6,006	2,185	21,395
April	3,686	2,150	35	7,410	691	5,356	1,866	31,355
May	4,054	2,900	35	6,870	475	7,990	2,843	40,040
June	5,272	3,210	70	12,515	180	8,009	3,663	42,546
July	850	295	70	2,570	315	3,166	997	14,117
Aug.	3,268	1,150	205	3,073	410	6,640	1,921	27,183
Sept.	1,003		35	3,401	255	2,296	1,484	13,321
Oct.	700	500	35	4,299	228	2,676	1,021	11,093
Nov.	2,630	200	70	3,714	205	2,566	797	9,687
Dec.	2,133	950	70	3,479	475	2,628	738	14,043
Total	32,024	16,530	880	64,084	4,508	53,584	19,273	260,100
1960								
Jan.	2,138	3,352	105	3,268	550	4,786	1,106	26,778
Feb.	2,665	2,350	50	4,930	295	3,715	574	23,020
Mar.	2,221	1,500		8,195	1,050	8,298	2,133	20,679
Apr.	2,006	2,707	83	2,891	380	5,180	916	16,519
May	2,327	1,000	35	4,516	115	4,526	927	18,244
June	2,665	1,500	70	5,043	230	714	690	15,813
July	1,690	1,280	70	3,745	88	2,120	28	14,148

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	16.00	13.00	12.619	12.00
Feb.	16.00	13.00	11.583	12.00
Mar.	16.00	13.00	11.42	12.00
Apr.	16.00	12.00	11.20	12.00
May	15.385	11.712	11.905	12.00
June	14.32	11.24	12.00	12.00
July	14.00	11.00	12.00	12.00
Aug.	14.00	10.85	12.286	12.00
Sept.	14.00	10.89	13.00	...
Oct.	13.704	12.673	13.00	...
Nov.	13.50	13.00	13.00	...
Dec.	13.00	13.00	12.523	...
Aver.	14.66	12.114	12.211	...

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	21.50	18.50	18.119	17.50
Feb.	21.50	18.50	17.083	17.50
Mar.	21.50	18.50	16.92	17.50
Apr.	21.50	17.50	16.70	17.50
May	20.885	17.212	17.405	17.50
June	19.82	16.74	17.50	17.50
July	19.82	16.50	17.50	17.50
Aug.	19.50	16.35	17.786	17.50
Sept.	19.50	16.39	18.50	...
Oct.	19.204	18.173	18.50	...
Nov.	19.00	18.50	18.50	...
Dec.	18.50	18.50	18.023	...

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers:

(In thousands of units)

	1957	1958	1959	1960
Jan.	2,638	2,004	2,672	1,866
Feb.	1,961	1,803	1,791	1,641
Mar.	1,254	1,577	1,376	1,877
Apr.	1,178	1,242	1,437	1,545
May	1,605	1,454	1,593	1,650
June	1,878	1,773	2,118	2,072
July	2,469	2,101	2,556	2,134
Aug.	2,856	2,333	2,728	...
Sept.	2,688	2,704	2,889	...
Oct.	3,042	2,976	3,069	...
Nov.	2,359	2,262	2,799	...
Dec.	2,015	3,041	2,465	...
Total	25,943	25,270	27,493	...

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	In ore and matte and in process at smelteries	—In base bullion (lead content)— At smelteries & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti- monial lead	Total Stocks
1958							
May 1..	86,053	11,838	2,138	20,524	130,668	12,468	263,689
June 1..	79,482	11,059	2,010	20,188	141,967	13,154	267,860
July 1..	80,060	9,012	1,570	22,092	150,648	12,856	276,238
Aug. 1..	83,347	12,438	860	21,615	154,378	10,482	283,379
Sept. 1..	77,416	14,767	1,176	20,444	158,413	10,889	283,105
Oct. 1..	72,724	14,797	2,223	18,125	159,662	11,004	278,535
Nov. 1..	61,819	11,492	1,086	19,041	157,385	12,050	262,873
Dec. 1..	62,960	11,072	1,565	20,941	167,493	11,828	275,859
1959							
Jan. 1..	72,378	10,917	1,767	19,746	185,913	12,595	303,316
Feb. 1..	72,832	10,565	1,889	21,317	197,085	11,789	315,477
Mar. 1..	62,383	11,707	1,447	21,479	202,835	12,111	311,962
Apr. 1..	68,433	14,352	350	20,575	198,459	12,065	314,234
May 1..	64,538	12,373	624	20,507	184,468	13,355	295,865
June 1..	55,223	12,239	766	20,391	157,981	13,596	260,196
July 1..	58,451	13,270	943	19,468	120,914	12,321	225,367
Aug. 1..	53,115	18,379	158	18,021	129,551	13,143	232,367
Sept. 1..	50,007	17,389	....	15,638	116,344	7,915	207,293
Oct. 1..	61,910	17,925	....	14,932	109,527	7,769	212,063
Nov. 1..	69,429	14,800	....	14,919	107,849	7,569	214,566
Dec. 1..	70,837	12,919	....	15,708	106,678	7,625	213,767
1960							
Jan. 1..	73,381	16,955	3,085	16,914	108,002	11,991	230,328
Feb. 1..	78,315	17,139	1,425	19,003	105,292	12,297	233,471
Mar. 1..	89,656	14,899	1,643	19,360	103,615	12,654	241,827
Apr. 1..	96,716	17,043	867	20,603	96,469	12,679	244,377
May 1..	92,969	16,519	1,581	22,124	105,498	12,831	251,522
June 1..	102,454	12,444	889	24,237	109,270	13,878	263,172
July 1..	99,230	15,371	1,461	24,600	116,638	13,221	270,521
Aug. 1..	96,675	19,414	2,302	25,578	122,130	13,728	279,827

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Receipts of lead in ore—			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1953 Total	351,183	155,788	506,971	42,994	549,965
1954 Total	336,291	158,081	494,372	49,864	544,236
1955 Total	341,595	172,966	514,561	42,996	557,557
1956 Total	368,499	192,318	560,817	55,925	616,792
1957 Total	356,409	206,901	563,310	42,537	605,847
1958					
May	27,427	10,228	37,655	1,867	39,522
June	28,577	13,811	42,388	1,366	43,754
July	22,289	19,692	41,891	1,615	43,506
August	22,984	13,043	36,027	1,252	37,279
September	20,654	14,576	35,230	1,765	36,995
October	18,678	9,093	27,771	3,577	31,348
November	24,024	14,541	38,565	3,933	42,498
December	24,366	18,804	43,170	3,982	47,152
Total	285,164	188,144	473,308	30,115	503,423
1959					
January	24,304	19,449	43,753	3,138	46,891
February	22,253	8,660	30,913	1,747	32,660
March	21,897	21,012	42,909	1,328	44,237
April	22,339	10,998	33,337	1,196	34,533
May	21,645	5,202	26,847	1,930	28,777
June	23,634	12,368	36,002	2,431	38,433
July	19,165	11,695	30,860	2,199	33,059
August	19,971	2,821	22,792	1,009	23,801
September	13,591	3,465	17,056	32	17,088
October	14,740	3,648	18,388	133	18,521
November	13,808	4,582	18,390	133	18,523
December	21,208	20,977	42,185	5,269	47,454
Total	238,555	124,877	363,432	20,545	383,977
1960					
January	20,531	26,307	46,838	2,041	48,879
February	23,700	15,541	39,241	2,439	41,680
March	28,824	16,742	45,566	2,404	47,970
April	26,574	9,243	35,817	2,212	38,029
May	21,674	16,679	38,353	2,812	41,165
June	20,248	11,694	31,942	2,580	34,522
July	18,831	11,252	30,083	2,237	32,320

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

METALS, SEPTEMBER, 1960

N. Y. Lead Price Changes

(Effective Date)

1951	Apr. 12....	14.00
Oct. 2..	**19.00	June 2....14.25
1952		June 15....14.00
Apr. 29....	18.00	Aug. 25....14.25
May 2....	17.00	Sept. 7....14.50
May 12....	15.00	Sept. 15....14.75
June 23....	16.50	Oct. 4....14.875
June 24....	16.00	Oct. 5....15.00
Oct. 7....	15.00	1955
Oct. 14....	14.00	Sept. 23....15.00-
Oct. 22....	13.50	15.50
Nov. 3....	14.00	Sept. 26....15.50
Nov. 10....	14.20	Dec. 29....16.00
Nov. 11....	14.50	1956
Nov. 20....	14.25	Jan. 4....16.50
Nov. 24....	14.00	Jan. 13....16.00
Dec. 22....	14.25	1957
Dec. 29....	14.50	May 9....15.50
Dec. 31....	14.75	May 16....15.00
1953		June 11....14.00
Jan. 7....	14.50	Oct. 14....13.50
Jan. 12....	14.00	Dec. 2....13.00
Feb. 2....	13.50	1958
Mar. 4....	13.00	Apr. 1....12.00
Mar. 10....	13.50	May 14....11.50
Apr. 7....	13.00	June 3....11.00
Apr. 16....	12.50	June 18....11.50
Apr. 21....	12.00	July 1....11.00
Apr. 29....	12.50	Aug. 13....10.75
May 18....	12.75	Sept. 17....11.00
May 19....	13.00	Sept. 30....11.50
May 26....	13.15	Oct. 2....12.00
June 11....	13.50	Oct. 8....12.50
July 20....	13.75	Oct. 14....13.00
July 28....	14.00	1959
Sept. 16....	13.50	Jan. 21....12.00
1954		Feb. 11....11.50
Jan. 13....	13.00	Feb. 24....11.00
Feb. 18....	12.50	Mar. 5....11.50
Mar. 9....	12.75	April 1....11.00
Mar. 10....	13.00	April 20....11.50
Mar. 26....	13.25	May 7....12.00
Mar. 29....	13.50	Aug. 24....13.00
Apr. 1....	13.75	Dec. 14....12.50
		Dec. 21....12.00

**OPS Collas.

Antimonial Lead Stocks at Primary Refineries

(A.B.M.S.)

	(In tons of 2,000 pounds)			
End of	1957	1958	1959	1960
Jan. ..	10,487	12,689	11,789	12,297
Feb. ..	10,220	12,309	12,111	12,654
Mar. ..	5,091	3,527	4,098	2,332
Apr. ..	9,391	12,468	13,555	12,831
May ..	9,799	13,154	13,596	13,878
June ..	9,503	12,856	12,321	13,221
July ..	8,661	10,482	13,143	13,728
Aug. ..	9,553	10,889	7,915	....
Sept. ..	10,215	11,004	7,769	....
Oct. ..	11,581	12,050	7,569	....
Nov. ..	11,119	11,828	7,625	....
Dec. ..	11,857	12,595	11,991	....

Antimonial Lead Production by Primary Refineries

(A.B.M.S.)

	(In tons of 2,000 pounds)			
End of	1957	1958	1959	1960
Jan. ..	5,114	3,743	3,541	2,538
Feb. ..	5,468	3,657	4,415	2,694
Mar. ..	9,794	12,144	12,065	12,679
Apr. ..	6,183	3,655	5,533	2,291
May ..	6,978	4,827	4,616	3,456
June ..	4,466	3,992	5,671	2,260
July ..	5,372	2,775	2,784	2,363
Aug. ..	7,967	5,244	2,185	....
Sept. ..	7,574	4,761	102	....
Oct. ..	6,148	5,849	886	....
Nov. ..	3,791	3,913	1,324	....
Dec. ..	3,290	4,539	2,656	....

Total 67,541 50,482 37,813

Lead Imports and Exports By Principal Countries

(A. B. M. S.)

Reported in pigs, bars, etc.; metric tons
except where otherwise noted.

	1960		
	Apr.	May	June
IMPORTS			
U. S.* (s.t.)	19,706	12,326	16,929
Denmark	1,133	401	2,353
France	3,555	8,454	3,059
Germany, W.†	8,749	6,895	...
Netherlands	2,118	2,413	3,635
Norway	277	...	...
Sweden	704	911	...
Switzerland	1,062	1,203	1,490
U. K. (l.t.)	22,979	13,075	15,490
India† (l.t.)	1,746	...	...
EXPORTS			
U. S.* (s.t.)	84	750	382
Canada (s.t.)	5,407	6,979	9,521
Denmark	315	9	6
France	44	542	616
Germany, W.†	2,143	2,934	...
Netherlands	365	417	669
Sweden	91	3,325	...
Northern	...	...	...
Rhodesia† (l.t.)	634	792	985
Australia (l.t.)	4,619	14,241	...

* Refined.

† Includes scrap.

† British Bureau of Non-Ferrous Metal Statistics.

French Lead Imports

(A. B. M. S.)

(In metric tons)

	1960		
	May	June	July
Ore (gross weight)	8,111	7,356	6,543
Morocco	8,111	5,355	5,555
Other countries	...	2,001	...
Canada	...	...	988
Pig lead	8,454	3,059	5,368
United States	254	...	...
Belgium	...	685	1,128
Germany (W.)	1,380	275	632
Spain	...	100	...
U. Kingdom	1,086	...	...
Algeria	1	564	711
Morocco	3,360	385	1,223
Tunisia	2,093	644	1,394
Australia	280	...	280
Other countries	...	406	...
Antimonial lead	...	330	501

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1960		
	May	June	July
(Gross Weight)			
Lead and lead alloys	13,075	15,490	20,087
Australia	5,616	3,573	11,574
Canada	2,440	4,892	4,779
Peru	875	700	750
Other countries	4,144	6,325	2,984

**IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER**

U. S. Lead Consumption

(Bureau of Mines — in Short Tons)

Metal Products:	1960		
	Jan.-June	May	June
Ammunition	22,956	3,936	4,050
Bearing metals	11,127	1,835	1,623
Brass and bronze	10,989	1,664	1,686
Cable covering	31,710	4,637	5,298
Calking lead	33,312	5,357	6,706
Casting metals	3,494	490	570
Collapsible tubes	4,009	697	706
Foil	2,094	308	539
Pipes, traps and bends	11,854	2,039	2,173
Sheet lead	13,595	2,529	2,490
Solder	30,265	4,842	5,109
Storage battery grids, post, etc.	85,309	14,332	14,567
Storage battery oxides	88,905	16,403	14,980
Terne metal	1,169	211	164
Type metal	13,182	2,188	2,090
Total	363,970	61,468	62,751
Pigments:			
White lead	4,419	798	1,210
Red lead and litharge	40,399	6,358	6,414
Pigment colors	6,280	1,187	1,052
Other*	1,249	186	258
Total	52,347	8,529	8,934

Chemicals:

Tetraethyl lead	79,760	15,707	11,202
Miscellaneous chemicals	877	197	150
Total	80,637	15,904	11,352

Miscellaneous uses:

Annealing	2,498	448	354
Galvanizing	709	88	97
Lead plating	35	9	4
Weights and ballast	3,807	678	653
Total	7,049	1,223	1,108
Other uses unclassified	9,131	1,697	1,348
Total reported†	513,134	88,821	85,493

Estimated unreported

consumption	12,000	2,000	2,000
Grand total†	525,100	90,800	87,500
Daily average‡	2,885	2,929	2,917

* Includes lead content of leaded zinc oxide production.

† Includes lead content of scrap used directly in fabricated products.

‡ Based on number of days in month without adjustment for Sundays and holidays.

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks May 31, 1960	Net Receipts in June	Consumed in June	Stocks June 30, 1960
Soft lead	75,441	49,500	56,493	68,448
Antimonial lead	44,617	19,579	20,698	43,498
Lead in alloys	7,285	3,692	3,698	7,279
Lead in copper-base scrap	849	1,401	1,345	905
Total	128,192	74,172	*82,234	120,130

* Includes 3,028 tons of lead which went directly from scrap to fabricated products and 231 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

	JUNE				
	Soft lead	Antimonial lead	Lead in alloys	Lead in copper-base scrap	Total
Metal products	34,635	20,159	3,662	1,345	59,801
Pigments	8,676	27	...	...	8,703
Chemicals	11,352	...	...	...	11,352
Miscellaneous	623	485	...	...	1,108
Unclassified	1,207	27	36	...	1,270
Total	56,493	20,698	3,698	1,345	*82,234

* Includes 3,028 tons of lead which went directly from scrap to fabricated products and 231 tons of lead contained in leaded zinc oxide production.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 pounds)		
	1958	1959	1960
Jan.	29,607	28,872	31,745
Feb.	27,855	25,968	30,241
Mar.	29,713	26,691	35,066
Apr.	26,230	29,252	28,148
May	28,839	27,280	33,459
June	28,624	30,099	33,318
July	27,201	26,851	...
Aug.	21,726	25,358	...
Sept.	28,829	30,255	...
Oct.	31,356	32,926	...
Nov.	27,786	32,579	...
Dec.	27,154	31,772	...
Total	335,920	345,903	

American Antimony

Monthly Average Prices

In bulk, f.o.b. Laredo
(Cents per lb. in ton lots)

	1957	1958	1959	1960
Jan.	33.00	33.00	29.00	29.00
Feb.	33.00	30.818	29.00	29.00
Mar.	33.00	29.00	29.00	29.00
Apr.	33.00	29.00	29.00	29.00
May	33.00	29.00	29.00	29.00
June	33.00	29.00	29.00	29.00
July	33.00	29.00	29.00	29.00
Aug.	33.00	29.00	29.00	29.00
Sept.	33.00	29.00	29.00	...
Oct.	33.00	29.00	29.00	...
Nov.	33.00	29.00	29.00	...
Dec.	33.00	29.00	29.00	...
Aver.	33.00	29.485	29.00	...

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1945, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.

Foreign Shipments of U.S. Lumber and Wood Products (Tons of 2,000 lbs.)								
	Stock Begin- ning	Pro- duction	Shipments—			Total	Stock at End	Daily Avg. Prod.
			Domes- tic	Export & Drawback	Gov't Acct			
1950 Total	94,221	810,354	849,246	18,189	128,256	995,691	8,884	2,494
1950 Mo. Avg.		75,863	70,770	1,516	10,688	82,974		
1951 Total	8,884	931,833	836,800	42,067	39,949	918,816	21,901	2,553
1951 Mo. Avg.		77,653	69,733	3,506	3,329	76,568		
1952 Total	21,901	961,430	803,343	56,202	36,626	896,171	87,160	2,625
1952 Mo. Avg.		80,119	66,945	4,683	3,052	74,681		
1953 Total	87,160	971,191	818,850	16,326	42,332	877,508	180,843	2,661
1953 Mo. Avg.		80,933	68,238	1,361	3,528	73,126		
1954 Total	180,843	868,242	787,922	27,929	108,957	924,808	124,277	2,379
1954 Mo. Avg.		72,353	65,660	2,327	9,080	77,067		
1955 Total	40,979	1,031,018	1,007,619	19,497	87,200	1,114,316	40,979	2,825
1955 Mo. Avg.		85,918	83,968	1,625	7,267	92,860		
1956 Total		1,062,954	869,270	9,027	157,014	1,035,311	68,622	2,904
1956 Mo. Avg.		88,850	72,439	752	13,085	86,275		
1957 Total		1,067,450	765,132	15,460	179,466	815,567		
1958								
July	252,979	65,119	60,312	55	60,187	257,911	2,101	
August	257,911	62,927	68,718	591	69,309	251,529	2,030	
September	251,529	63,705	76,905	213	77,118	238,116	2,124	
October	238,116	65,304	93,018	226	93,224	210,176	2,107	
November	210,176	65,174	83,394	212	83,606	191,744	2,172	
December	191,744	75,503	76,862	148	77,010	190,237	2,432	
1958 Total		828,902	767,755	3,102	34,488	805,325		
1959								
January	190,237	76,481	70,770	171	70,941	195,777	2,467	
February	195,777	71,174	65,641	849	66,490	200,461	2,542	
March	200,461	79,918	73,814	482	74,296	206,083	2,578	
April	206,083	76,393	78,358	255	78,613	203,863	2,546	
May	203,863	77,489	85,073	275	85,348	196,004	2,500	
June	196,004	75,544	99,858*	204	102,162	169,386	2,518	
July	169,386	73,101	59,460	94	60,454	182,033	2,358	
August	182,033	69,768	58,918	864	59,782	192,019	2,251	
September	192,019	62,202	67,971	3,214	61,185	193,036	2,073	
October	193,036	63,938	69,910	1,813	65,723	181,251	2,083	
November	191,251	62,346	74,595	2,844	77,440	176,157	2,078	
December	176,157	69,666	84,498	6,906	91,404	154,419	2,247	
1959 Total		858,020	872,867	17,971	3,000	893,838		
1960								
January	154,419	73,326	79,325	3,949	83,274	144,471	2,365	
February	144,471	74,738	78,029	4,118	82,147	137,062	2,577	
March	137,062	86,028	80,760	5,764	86,524	136,566	2,775	
April	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
May	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
June	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
July	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
August	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
September	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
October	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
November	136,566	83,221	64,251	7,675	71,926	147,861	2,774	
December	136,566	83,221	64,251	7,675	71,926	147,861	2,774	

* Inflated by abnormal shipments on consignment of approximately 9,000 tons.

U. S. Consumption of Slab Zinc

Bureau of Mines

By Industries (Short Tons)

	Galvan- izers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953 Total	408,162	305,846	177,301	58,784	33,087	977,636
1954 Total	398,599	286,817	107,293	45,979	33,342	876,130
1955 Total	439,694	404,790	144,816	50,363	39,302	1,081,468
1956 Total	421,218	352,451	122,395	45,382	36,251	983,097
1957 Total	355,796	358,543	111,114	39,544	20,486	924,063
1958						
May	30,935	18,316	6,597	2,896	2,263	61,907
June	34,377	21,497	6,643	2,961	2,212	67,690
July	30,677	17,387	6,275	2,848	1,920	60,007
August	34,663	20,382	8,358	3,379	1,901	70,033
September	34,048	25,188	9,624	3,458	770	74,122
October	36,513	27,682	11,753	3,845	881	81,919
November	31,658	27,311	10,067	3,276	826	74,302
December	31,746	29,926	10,529	3,681	1,018	78,082
Total	370,441	273,540	92,906	38,690	16,772	737,942
1959						
January	31,729	29,110	11,172	3,874	2,521	79,506
February	31,672	26,448	11,508	3,418	2,864	77,010
March	37,287	29,286	12,889	3,629	3,203	87,394
April	38,541	31,262	12,304	3,715	3,223	90,145
May	38,788	29,169	12,015	3,316	3,305	88,093
June	40,531	36,269	10,764	3,801	3,120	95,985
July	23,700	28,120	7,558	2,509	2,042	65,429
August	13,763	29,803	10,064	3,160	2,161	60,451
September	13,181	31,463	10,842	3,322	2,237	62,545
October	13,582	35,473	10,543	3,272	2,487	66,857
November	25,456	29,351	8,858	3,411	2,523	71,099
December	38,418	34,576	8,704	3,152	2,936	89,286
Total	346,648	370,330	127,221	40,759	22,622	933,800
1960						
January	38,389	31,813	9,838	3,130	3,352	88,122
February	35,001	34,829	9,259	3,250	3,156	87,365
March	36,206	31,889	10,108	3,309	3,403	86,515
April	31,319	24,483	7,097	3,032	3,033	71,164
May	31,503	22,957	7,697	3,402	3,386	70,545
June	31,882	25,625	8,541	3,181	2,814	73,883

METALS, SEPTEMBER, 1960

Prime Western Zinc Prices

(East St. Louis, f.o.b.)

	(Cents Per Pound)			
	(In tons of 2,240 pounds)			
	1957	1958	1959	1960
Jan.	13.50	10.00	11.50	12.90
Feb.	13.50	10.00	11.41	13.00
Mar.	13.50	10.00	11.00	13.00
Apr.	13.50	10.00	11.00	13.00
May	11.933	10.00	11.00	13.00
June	10.84	10.00	11.00	13.00
July	10.00	10.00	11.00	13.00
Aug.	10.00	10.00	11.00	13.00
Sept.	10.00	10.00	11.381	...
Oct.	10.00	10.865	12.233	...
Nov.	10.00	11.386	12.50	...
Dec.	10.00	11.50	12.50	...
Aver.	11.40	10.313	11.46	...

High Grade Zinc Prices

	(Delivered)			
	N. Y. Monthly Averages			
	(Cents Per Pound)			
	1957	1958	1959	1960
Jan.	14.85	11.35	12.50	14.244
Feb.	14.85	11.35	12.411	14.25
Mar.	14.85	11.35	12.00	14.25
Apr.	14.85	11.084	12.00	14.50
May	13.283	11.00	12.00	14.50
June	12.19	11.00	12.00	14.50
July	11.35	11.00	12.00	14.35
Aug.	11.35	11.00	12.006	14.35
Sept.	11.35	11.00	12.625	...
Oct.	11.35	11.865	13.483	...
Nov.	11.35	12.386	13.75	...
Dec.	11.35	12.50	13.75	...
Aver.	12.75	11.407	12.544	...

U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	(In Tons of 2,240 Pounds)		
	1958	1959	1960
Jan.	27,473	27,849	30,637
Feb.	24,551	25,676	30,480
Mar.	26,967	27,243	35,268
Apr.	24,984	28,006	28,069
May	24,579	26,167	30,848
June	25,587	30,221	33,058
July	23,794	26,318	...
Aug.	19,076	21,566	...
Sept.	26,747	31,270	...
Oct.	29,838	30,686	...
Nov.	26,432	29,221	...
Dec.	26,042	30,829	...
Total	306,070	335,890	...

IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER

Mine Production of Zinc in United States (U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1954				
Total	166,487	63,100	234,942	464,539
1955				
Total	163,230	73,630	277,811	514,671
1956				
Total	175,310	61,080	301,253	537,643
1957				
Total	196,877	29,506	290,151	520,128
1958				
Total	180,373	10,050	221,582	412,005
1959				
Mar.	18,266	—	18,817	37,183
Apr.	19,198	—	19,132	38,330
May	19,150	—	19,201	38,351
June	18,217	—	18,447	36,664
July	13,158	—	18,656	31,814
Aug.	14,410	140	16,661	31,211
Sept.	14,226	154	15,026	29,406
Oct.	15,608	200	15,979	31,487
Nov.	18,285	200	15,698	34,183
Dec.	19,609	106	15,757	35,472
Total	204,384	800	211,781	416,965
1960				
Jan.	20,962	226	15,795	36,983
Feb.	21,001	195	16,823	38,019
Mar.	22,794	347	19,725	42,866
Apr.	22,410	606	17,839	40,855
May	23,103	408	17,235	40,746
June	22,004	575	16,491	39,070
July	21,083	823	15,881	37,787

*Includes Alaskan output in some months.

Mine Production of Lead in United States (U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Ttl.	8,608	138,940	169,804	317,352
1955				
Ttl.	10,379	145,640	177,409	333,409
1956				
Ttl.	11,395	141,900	195,034	348,329
1957				
Ttl.	9,300	135,800	188,392	333,493
1958				
Ttl.	6,439	118,114	142,824	267,377
1959				
Apr.	454	8,103	12,684	21,241
May	412	7,253	12,509	20,174
June	458	8,185	12,764	21,407
July	369	8,190	11,010	19,569
Aug.	353	9,762	11,735	21,850
Sept.	510	9,698	10,328	20,536
Oct.	548	10,012	10,755	21,315
Nov.	620	9,350	10,954	20,924
Dec.	550	8,734	10,572	19,856
Ttl.	6,535	105,435	141,290	253,260
1960				
Jan.	535	9,035	11,235	20,805
Feb.	555	9,611	12,267	22,433
Mar.	619	11,146	13,695	25,460
Apr.	647	9,716	12,750	23,113
May	624	9,395	10,720	20,738
June	585	9,749	9,002	19,356
July	598	8,301	8,462	17,361

Mine Production of Gold in United States (U. S. Bureau of Mines) (In fine ounces)

	Eastern States	Western States	Alaska*	Total
1955				
Ttl.	2,026	1,634,625	247,535	1,884,186
1956				
Ttl.	1,998	1,607,930	204,300	1,814,228
1957				
Ttl.	2,174	1,556,450	210,000	1,768,624
1959				
Apr.	—	—	2,956	141,777
May	—	—	9,719	157,338
June	—	—	23,792	163,057
July	—	—	33,324	171,749
Aug.	—	—	37,534	146,907
Sept.	—	—	30,886	114,364
Oct.	—	—	29,349	117,314
Nov.	—	—	2,903	91,175
Dec.	—	—	17,294	106,525
Ttl.	—	—	188,294	1,618,446
1960				
Jan.	—	—	2,460	—
Feb.	—	—	1,064	108,652
Mar.	—	—	231	120,928
Apr.	—	—	43	121,017
May	—	—	4,919	141,861
June	—	—	5,504	140,058
July	—	—	28,493	155,127

* Alaska totals based on mint and smelter receipts.

U. S. Silver Production* (A.B.M.S.)

	(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)		
	Dom.†	For.	Total
1954 Total	38,059	39,422	77,481
1955 Total	33,101	32,780	65,881
1956 Total	38,157	40,160	78,317
1957 Total	36,279	34,932	71,211
1958 Total	35,691	37,572	73,263
1959			
February	2,827	2,913	5,740
March	2,823	4,087	6,910
April	2,946	3,233	6,179
May	2,641	3,484	6,125
June	3,219	3,231	6,450
July	2,609	3,284	5,893
August	1,472	1,229	2,701
September	390	577	967
October	510	610	1,120
November	635	602	1,237
December	756	4,311	5,067
Total	23,158	32,021	55,179
1960			
January	3,327	2,830	6,157
February	3,454	3,496	6,950
March	4,010	4,259	8,269
April	3,866	4,158	8,024
May	3,425	4,018	7,443
June	3,278	3,924	7,202
July	2,817	3,799	6,616

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Mine Production of Recoverable Silver in United States (U. S. Bureau of Mines)

	(In Fine Ounces)			
	Eastern States	Missouri	Western States	Alaska*
1957 Total	610,386	240,000	37,018,950	26,000
1958 Total	†	210,000	†	28,000
1959				
May	†	15,900	†	1,201
June	†	17,900	†	2,953
July	†	8,900	†	4,149
August	†	10,600	†	5,523
September	†	10,400	†	3,224
October	†	10,900	†	3,793
November	†	10,400	†	469
December	†	10,140	†	2,334
Total	†	169,000	†	24,134
1960				
January	†	18,300	†	321
February	†	200	†	312
March	†	100	†	17
April	†	100	†	5
May	†	100	†	627
June	†	200	†	753
July	†	200	†	4,023

† Figures not available.

* Alaska totals based on mint and smelter receipts.

Production of Primary Aluminum in the U. S. (U. S. Bureau of Mines)

	(In short tons)							
	1953	1954	1955	1956	1957	1958	1959	1960
Jan.	89,895	116,247	128,203	140,394	147,029	139,910	156,708	164,024
Feb.	92,649	110,483	116,236	132,763	119,059	121,980	142,116	156,826
Mar.	104,460	122,339	130,272	145,895	135,706	134,019	157,189	170,688
Apr.	102,071	120,434	126,394	144,726	139,152	128,559	155,213	168,596
May	105,464	125,138	131,128	150,800	145,174	129,083	163,857	175,863
June	104,152	120,758	127,634	145,726	138,007	115,325	167,323	171,356
July	109,285	126,161	132,669	151,624	142,157	118,811	179,594	177,564
Aug.	110,545	125,296	133,551	92,406	143,449	125,416	172,817	—
Sept.	109,333	120,332	130,606	132,316	129,278	124,713	168,205	—
Oct.	108,219	125,089	134,655	149,125	133,759	139,847	173,762	—
Nov.	105,636	121,252	133,689	145,081	135,024	140,962	153,666	—
Dec.	110,291	127,056	140,748	148,391	140,033	153,301	162,996	—
Ttl.	1,252,013	1,460,565	1,565,721	1,679,427	1,647,710	1,650,556	1,953,019	—

Average Silver Prices

	(Cents per fine ounce)			
	1957	1958	1959	1960
Jan.	91.375	89.449	90.19	91.375
Feb.	91.375	88.625	90.444	91.375
Mar.	91.375	88.625	91.351	91.375
Apr.	91.375	88.625	91.375	91.375
May	91.307	88.625	91.375	91.375
June	90.456	88.625	91.375	91.375
July	90.31	88.625	91.375	91.375
Aug.	90.909	88.625	91.399	91.375
Sept.	90.602	88.673	91.399	—
Oct.	90.625	89.966	91.375	—
Nov.	90.382	90.125	91.375	—
Dec.	89.80	89.932	91.375	—
Aver.	90.824	89.043	91.226	—

Note — The averages are based on the price of refined bullion imported on or after August 31, 1945.

U. S. Lead Imports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Ore, matte, etc. (cont.)	14,137	12,947	13,183
Canada	1,862	962	3,561
Mexico	139	106	44
Guatemala	1,170	535	...
Honduras	402	...	434
Bolivia	1,258	385	1,326
Chile	...	...	28
Colombia	...	155	...
Peru	2,594	3,381	3,976
Morocco	...	1,795	...
Union of S. Africa	6,104	5,575	...
Australia	576	...	3,771
Philippines	...	36	17
Other countries	32	17	26
Base bullion (cont.)	...	250	...
Other countries	...	250	...
Pigs and bars	12,326	16,929	20,185
Canada	1,005	3,644	3,363
Mexico	4,071	6,694	4,638
Peru	1,869	4,000	200
Belgium	...	287	...
France	...	2	...
Germany (West)	...	237	...
Spain	...	...	710
Sweden	...	1,110	...
Yugoslavia	5,180	...	1,314
Australia	201	1,192	9,723

Total Imports:

Ore, base bullion, ref.	26,463	30,126	33,368
Lead scrap, dross, etc.	...	...	...
(content)	1,167	845	795
Antimonial lead & typemetal	260	179	98
Lead content thereof	211	154	76

U. S. Copper Scrap Exports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Copper scrap, unalloyed* (new and old)	5,670	6,156	6,842
Canada	56	146	149
Argentina	22	22	...
Belgium	267	131	508
France	...	27	93
Germany (West)	3,295	2,620	2,980
Italy	398	622	357
Netherlands	168	343	258
Spain	306	271	248
Sweden	275	...	...
Yugoslavia	...	...	849
United Kingdom	191	778	333
India	120	152	122
Japan	413	925	847
Hong Kong	66	25	...
Other countries	93	94	98
Copper-base scrap, alloyed* (new and old)	7,730	12,831	12,546
Canada	...	6	112
Mexico	4	2	2
Belgium	93	53	162
France	23	...	23
Germany (West)	1,502	2,110	1,538
Italy	627	1,071	1,037
Netherlands	394	186	1,219
Spain	...	22	28
Switzerland	13	...	137
United Kingdom	16	2,097	73
India	80	111	195
Japan	4,961	7,166	7,902
Hong Kong	17	...	...
Other countries	...	7	118

* Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap.

† Copper-base alloys, including brass and bronze — Ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

U. S. Copper Imports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Ore, matte & regulus (content)	6,314	8,080	8,330
Canada	645	1,116	968
Mexico	134	222	129
Cuba	1,475	1,209	420
Bolivia	...	...	421
Chile	2,042	186	2,473
Peru	1,014	922	1,853
Philippines	...	2,196	1,980
Union of South Africa	950	2,229	...
Australia	54	...	77
Other countries	...	...	9
Blasted copper (content)	16,180	36,670	19,129
Mexico	283	1,825	1,474
Chile	10,189	20,033	11,330
Peru	3,400	14,812	5,050
Union of South Africa	2,328	...	1,275
Refined cathodes and shapes	7,152	7,464	6,818
Canada	6,839	7,353	5,793
Mexico	110	110	275
Peru	201	...	694
Belgium	...	...	86
Germany (West)	2	...	...
Spain	...	...	1
Total Imports:	...	...	...
Crude and refined	29,646	52,214	34,277
Old and scrap (cont.)	61	133	164
Composition metal (content)	28	1	195
Brass scrap and old (cu. cont.)	66	257	221

U. S. Copper Exports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Ore, concentrates, matte and other unrefined (content)	278	1,308	47
Refined ingots, bars, etc.*	50,753	38,757	45,020
Canada	31	38	59
Mexico	4	44	16
Cuba	...	...	...
Argentina	512	1,519	759
Brazil	681	2,656	1,532
Austria	166	56	3
Belgium	688	756	168
Denmark	112	168	168
France	7,484	971	4,601
Germany (West)	14,548	8,719	12,336
Italy	7,177	7,510	6,412
Netherlands	2,068	896	1,842
Norway	290	...	224
Portugal	56	111	...
Sweden	728	307	294
Switzerland	307	419	1,061
United Kingdom	11,463	9,615	12,209
Yugoslavia	560	...	...
Taiwan	281	33	...
India	233	1,040	30
Japan	3,010	3,588	2,552
Australia	224	224	246
Other countries	130	87	508
Total Exports:	...	...	...
Crude and refined	51,031	40,065	45,067
Pipes and tubes	64	39	84
Plates and sheets	32	12	112
Semifabricated forms	630	729	464
Wire, bars	147	170	407
Building wire and cable†	129	132	208
Weatherproof wire†	7	9	1
Insulated copper wire n.e.s.†	771	951	1,178

* Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

† Gross weight; n.e.s.—not elsewhere specified.

Comparative Metal Prices

	OPA		
	Av.	Av.	1960
	1939	1946	Sept. 14
Copper, domestic	11.20	14.375	33.00
Electro., Del. Val.	5.05	8.25	12.00
Lead (N. Y.)	5.05	5.05	13.00
P. W. Zinc (E. St. Louis, f.o.b.)	...	...	13.50
New York, del.	...	...	102.00
Tin Spot Straits, N. Y.	...	...	20.00
Aluminum ingot 99 1/2%+	20.00	15.00	26.00
Antimony (R.M.M. brand f.o.b. Laredo)	12.36	14.50	29.00

U. S. Zinc Imports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Zinc ore (content)	49,160	32,696	35,689
Canada	9,474	9,746	9,212
Mexico	22,863	12,893	12,750
Guatemala	...	1,452	2,849
Honduras	91	320	...
Bolivia	52	22	20
Colombia	5	5	...
Peru	10,721	5,096	4,789
Spain	...	2,383	...
Union of South Africa	803	769	...
Australia	5,071	...	5,439
Philippines	27	2	617
Other countries	...	53	8
Zinc blocks, pigs, etc.	6,820	15,475	3,692
Canada	3,709	10,763	1,865
Mexico	1,102	1,392	...
Peru	492	1,088	...
Belgium	55	1,102	...
Germany (West)	112	...	...
Italy	...	165	386
United Kingdom	110	55	...
Yugoslavia	468	221	992
Belgian Congo	772	689	...
Australia	...	...	449

Total Imports:

Zinc ore, blocks, pigs	55,980	48,171	39,381
Dross and skimmings	46	122	93
Old and worn out	16	...	...

U. S. Zinc Exports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Ore, conc. (cont.)	...	...	1
Slabs, blocks, etc.	7,066	4,236	2,385
Mexico	...	...	39
Brazil	...	123	449
Chile	...	...	...
Colombia	220	220	...
Belgium	336	...	...
Denmark	140	...	...
Germany (West)	1,344	112	...
Italy	224	...	...
Netherlands	224	224	224
Sweden	224	224	308
Switzerland	224	...	...
United Kingdom	3,738	1,229	448
Philippines	...	282	...
Taiwan	330	...	...
India	...	1,822	801
Other countries	59	...	116
Total Exports:	...	...	...
Ore, conc., slabs	7,066	4,236	2,386
Scrap, ashes, dross and skimmings	1,406	974	951
Battery shells and parts, unassembled	36	1	1
Rolled in sheets, plates & strips & die castings	336	233	212
Zinc and zinc alloys in crude and semifabricated forms	81	191	380
Zinc oxide	196	234	170

U. S. Lead Exports (A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)			
	1960	1960	1960
	May	June	July
Lead, ore, concentrates, matte and base bullion (content)	15	74	...
Mexico	15	...	...
Iran	...	74	...
Pigs and bars	750	382	18
Canada	7	9	2
Mexico	...	4	2
Guatemala	...	2	...
Colombia	...	2	...
Peru	...	1	...
Belgium	...	5	...
Taiwan	734	352	7
Korea	...	...	2
Other countries	9	7	5
Total Exports:	...	...	...
Ore, base bullion, ref.	765	456	18
Scrap	60	129	211
Lead plate, including battery plate, not assembled as complete battery units	...	3	2
Babbitt metal	3	8	3
Lead and lead base alloys in semifabricated forms	39	32	38

World Production of Copper (American Bureau of Metal Statistics)

	United States	Canada	Mexico (crude)	Chile	Peru	Fed. Rep. of Germany	Norway	United Kingdom	Yugoslavia	India	Japan	Turkey	Australia	Northern Rhodesia	Union of South Africa
	(a)	(b)	(c)	(d)	(d)	(e)	(f)	(g-h)	(e)	(f-h)	(e)	(f)	(e)	(e)	(d)
1955															
Total	1,036,702	326,599	61,583	447,288	35,478	286,805	14,876	138,271	31,151	8,432	124,903	26,313	41,935	350,302	47,176
1956															
Total	1,133,134	356,251	69,918	506,251	35,005	279,461	16,487	127,365	32,390	8,827	139,062	27,101	55,711	435,186	47,914
1957															
Total	1,115,483	360,745	42,905	....	46,141	255,710	17,265	121,799	37,186	9,298	143,654	27,101	55,633	499,418	47,828
1958															
Total	1,881,170	346,816	68,386	462,064	42,750	295,312	19,529	106,134	37,116	9,062	136,612	24,676	72,361	426,513	53,090
1959															
Mar.	101,410	32,427	4,771	44,554	1,601	26,959	1,694	8,654	3,536	810	10,746	2,034	4,573	51,630	4,611
April	96,376	32,130	5,201	42,715	4,250	26,859	1,870	11,259	3,593	763	17,938	2,330	7,419	48,150	4,528
May	104,236	32,622	5,275	46,083	3,770	25,358	1,771	7,693	5,503	764	18,516	2,480	6,408	53,067	4,676
June	99,419	36,979	5,847	46,901	3,357	24,635	1,743	10,909	3,231	776	18,621	2,362	8,133	53,895	4,766
July	81,662	36,067	5,765	45,508	3,676	25,890	1,639	7,108	3,369	781	18,957	1,846	5,346	48,806	4,541
Aug.	51,327	35,045	5,326	50,093	2,533	24,716	1,677	6,610	1,810	774	18,805	2,378	5,798	50,285	4,357
Sept.	19,503	35,740	4,125	44,439	8,782	25,357	1,986	10,433	3,619	799	18,837	2,427	7,111	48,753	3,742
Oct.	20,931	35,980	4,068	36,449	8,061	27,840	1,800	8,951	3,137	804	18,898	2,304	....	49,519	3,025
Nov.	18,351	35,271	4,886	50,877	2,904	25,258	1,495	10,076	3,451	802	17,186	2,923	....	49,232	5,005
Dec.	26,686	34,416	4,872	53,186	3,438	28,143	2,035	8,736	2,403	421	20,498	....	....	48,350	5,244
1960															
Jan.	64,098	36,404	4,326	47,550	2,901	27,222	1,841	7,489	3,310	769	21,096	....	4,702	56,495	5,061
Feb.	85,899	35,824	4,817	43,380	3,579	25,288	1,954	8,719	3,013	831	....	....	6,915	47,322	3,017
Mar.	107,595	38,341	5,376	49,124	15,956	30,836	2,008	8,453	3,617	913	22,968	2,723	6,310	52,332	4,292
Apr.	104,895	34,289	4,872	50,910	16,501	26,915	1,905	9,640	3,177	808	21,563	2,480	....	54,595	4,738
May	104,272	36,892	4,300	39,580	16,198	29,897	2,038	12,379	3,375	838	18,077	....	....	55,596	4,706
June	95,522	37,061	5,061	48,826	13,259	28,011	....	11,720	....	820	23,314	....	....	54,616	....
July	91,629	....	4,515	....	14,544	....	....	....	....	....	....	....	....	54,982	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake." Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. * Refined.

World Production of Refined Lead (American Bureau of Metal Statistics)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugoslavia	Japan	Australia	French Morocco	Tunisia	Rhodesia	Total
	(a)	(b)	(b-c)	(d)	(a)	(a)	(e)	(b)	(b)	(b)	(a)	(a)	(a)	(a)	(b)	(d)
1955																
Total	547,153	148,811	221,138	67,303	91,241	73,251	162,508	46,806	67,509	83,347	40,912	254,558	28,870	28,620	17,976	1,893,125
1956																
Total	613,293	147,865	213,524	61,917	111,479	73,261	178,713	42,780	64,824	83,507	51,019	256,300	30,993	26,623	17,024	1,984,344
1957																
Total	604,533	142,935	218,266	55,971	....	94,509	195,136	42,336	61,332	85,313	59,670	261,035	34,442	27,069	12,364	2,041,530
1958																
Total	676,612	130,886	246,443	80,999	119,192	111,337	223,973	60,860	77,490	92,903	52,915	271,654	42,266	32,359	16,492	1,955,753
1959																
Mar.	39,238	13,704	16,305	3,424	8,447	6,733	17,553	3,168	6,196	8,153	6,889	20,144	1,905	2,429	1,344	155,914
April	40,606	13,655	16,621	4,438	8,038	5,541	17,141	4,942	6,491	6,876	6,615	23,199	2,726	2,155	1,344	162,611
May	39,101	13,357	16,934	6,606	8,797	7,363	17,728	3,614	7,435	8,369	6,137	23,499	2,050	1,784	1,344	165,602
June	37,459	12,987	20,000	6,540	8,125	6,976	18,125	2,453	6,510	7,954	6,949	25,151	1,552	926	1,344	164,815
July	32,882	8,096	17,099	6,401	8,734	6,065	16,381	4,384	6,074	2,221	5,303	19,125	2,859	1,749	1,344	139,291
Aug.	25,589	7,357	19,086	4,267	7,547	6,581	15,256	3,364	6,049	8,645	5,344	21,168	862	2,863	1,344	136,725
Sept.	14,801	9,775	14,320	4,354	7,217	6,184	17,778	4,502	4,728	8,731	5,822	22,786	3,567	2,352	1,344	128,850
Oct.	15,892	9,897	17,988	6,005	8,070	8,070	18,070	4,310	2,198	....	4,663	24,226	3,466	2,689	1,344	....
Nov.	18,796	9,674	18,223	6,199	7,766	6,431	17,820	4,310	6,193	8,273	4,594	24,226	4,466	2,689	1,344	141,370
Dec.	30,160	10,071	16,448	5,826	7,708	6,581	19,726	4,638	6,639	11,393	6,865	23,448	3,869	2,056	1,344	....
1960																
Jan.	40,043	11,664	15,821	6,127	8,450	6,818	19,424	3,128	7,284	6,896	6,699	26,233	2,448	....	1,309	163,457
Feb.	36,435	12,459	17,371	6,063	8,746	6,276	17,907	4,260	6,468	7,167	....	24,964	2,267	1,047	1,316	....
Mar.	37,192	13,967	13,687	7,154	9,561	8,500	19,743	3,716	6,249	7,804	7,034	19,307	2,916	1,774	1,348	161,625
Apr.	40,177	13,261	17,715	6,945	9,357	9,716	19,202	3,607	6,886	6,382	6,007	19,663	3,053	2,663	1,347	168,049
May	36,509	13,467	18,736	6,905	9,406	9,370	20,299	4,074	....	6,865	6,086	22,065	3,103	1,241	1,354	....
June	33,448	....	14,320	6,488	8,247	8,343	16,372	3,387	....	....	6,763	....	....	2,423	1,313	....
July	29,270	....	15,523	7,000	....	8,818	....	....	....	....	....	....	3,895	2,922	....	....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc (American Bureau of Metal Statistics)

	United States	Can.	Mexico	Peru	Belgium	France	(In Tons of 2,000 Pounds) Fed. Rep. of Germany	Great Britain	Italy	Netherlands	Norway	Spain	Yugoslavia	Japan	Australia	Rhodesia	Total
	(a)	(b)		(b-c)		(a)					(b)				(a)	(b)	(d)
1955																	
Total 1956	1,031,018	257,008	61,879	18,943	233,623	123,623	197,024	90,917	77,761	31,202	49,724	26,244	15,175	122,965	113,221	31,248	2,534,457
Total 1957	1,062,954	255,601	62,136	10,428	251,906	124,105	204,961	90,784	80,407	32,123	53,170	25,224	15,434	153,821	117,445	32,396	2,630,383
Total 1958	1,574,500	247,356	62,354	35,772	259,701	148,455	202,627	85,348	81,179	32,786	52,787	24,279	30,256	162,145	123,587	33,040	2,691,699
Total 1959	892,607	254,661	18,354	34,685	257,540	177,422	210,408	80,494	5,955	2,841	54,423	26,750	34,446	166,883	128,548	39,508	2,464,639
Feb.	71,174	19,709	4,915	1,497	19,838	13,491	15,632	6,123	4,735	2,927	4,928	1,926	2,510	14,105	9,617	2,548	199,495
Mar.	79,918	22,135	5,439	2,363	20,215	14,230	17,325	7,797	6,801	2,991	4,917	2,369	3,014	13,217	10,759	2,800	221,316
Apr.	76,393	21,512	5,225	2,502	20,408	14,087	16,426	6,030	7,039	2,816	3,821	2,239	2,509	15,645	10,472	2,716	216,378
May	71,489	21,147	5,108	2,545	21,181	13,902	16,633	6,595	7,790	2,823	4,798	2,273	2,701	16,171	11,137	2,744	226,057
June	75,544	21,850	4,776	2,524	21,004	14,120	16,185	8,271	7,184	2,899	4,759	2,180	2,083	15,873	10,899	2,716	218,131
July	78,101	21,055	5,038	2,534	20,100	14,262	16,325	6,112	7,303	2,917	4,539	2,057	3,795	15,233	11,189	2,856	215,525
Aug.	69,768	21,588	4,965	2,504	19,472	14,133	16,585	5,507	7,370	2,968	4,646	2,198	3,355	15,308	11,298	2,912	211,964
Sept.	62,202	20,744	4,935	2,577	19,387	11,883	16,366	7,892	6,819	2,928	4,708	2,208	3,013	15,183	10,885	2,865	199,560
Oct.	63,938	21,744	5,084	2,545	20,512	13,228	16,664	6,557	6,403	2,967	3,570	2,245	.....	.....	.....	.....	190,800
Nov.	62,346	21,039	5,072	2,608	21,180	12,251	16,859	6,203	6,403	2,967	3,570	2,245	4,990	13,634	10,904	2,800	199,319
Dec.	69,666	21,963	5,330	2,578	21,810	12,807	17,336	7,772	6,519	3,201	3,074	2,331	.....	15,141	11,305	2,906	.....
1960																	
Jan.	73,326	22,426	5,278	2,608	21,957	12,675	17,409	7,250	6,781	2,786	4,743	2,402	3,178	15,498	11,023	2,707	220,587
Feb.	74,738	21,055	4,627	2,660	22,059	13,331	16,501	5,761	6,774	2,957	4,299	2,213	3,180	.....	10,357	2,664	.....
Mar.	86,028	22,549	5,297	2,841	22,406	14,424	17,663	7,868	7,794	3,462	4,388	2,242	3,392	16,307	11,377	2,894	.....
Apr.	83,221	21,391	4,662	2,760	22,608	14,235	16,883	6,860	7,173	3,112	4,421	2,146	3,190	16,188	11,834	2,800	.....
May	79,237	21,972	5,093	2,824	23,276	14,071	17,147	5,577	6,838	3,361	3,838	.....	3,190	12,088	11,238	2,897	.....
June	76,723	21,294	4,554	2,951	23,924	13,897	16,948	6,786	7,507	.....	3,988	.....	.....	16,058	10,888	2,803	.....
July	73,754	20,860	5,080	3,068	.....	.....	.....	5,137	.....	.....	2,390	.....	.....	.....	.....	.....	.....

(British Bureau of Non-Ferrous Metal Statistics)

Virgin Zinc	Zinc Conc.
100	100
90	90
80	80
70	70
60	60
50	50
40	40
30	30
20	20
10	10
0	0

At start of:	1959	1960	1959	1960
Jan.	34,166	37,162	56,371	45,885
Feb.	34,805	48,337	58,518	41,547
Mar.	36,850	48,689	57,897	39,546
Apr.	38,457	51,064	52,151	44,250
May	38,643	54,491	47,936	47,486
June	37,713	52,470	41,954	47,595
July	38,297	52,004	45,640	54,044
Aug.	37,427	....	43,948	....
Sept.	40,358	....	42,385	....
Oct.	40,995	....	39,233	....
Nov.	35,994	....	38,948	....
Dec.	35,460	....	47,131	....

(British Bureau of Non-Ferrous Metal Statistics)

1960		
Mar	Apr	May

	Mar.	Apr.	May
(Gross Weight)			
Zinc ore and concentrates	26,848	20,356	15,128
Zinc conc.*	12,879	10,451	†
Australia	10,666	8,640	...
Peru	593	...	...
Burma	970	873	...
Other countries	650	938	...
Zinc and zinc alloys	19,802	15,094	13,018
Rhodesia-Nyasaland	375	...	...
Australia	...	700	...
Canada	11,462	6,642	4,442
Belgium	975	1,510	775
Germany (W.)	70	11	12
Netherlands	25	94	195
Soviet Union	3,071	1,804	1,034
United States	639	949	4,187
Belgian Congo	1,550	1,325	75
Poland	750	175	500
Other countries	885	1,884	1,798

* British Bureau of Non-Ferrous Metal Statistics. The estimated zinc content is not the content of the gross weight as officially reported for any comparable period.

† Not available.

Statistics)

1960		
Mar.	Apr.	May

	Mar.	Apr.	May
Copper unwrought			
— ingots blocks,			
slabs, bars, etc.	3,726	3,422	2,953
Plates, sheets,			
rods, etc.	4,931	1,731	6,990
Wire (including			
uninsulated			
electric wire) . .	316	264	213
Tubes	1,139	958	1,187
Other copper			
worked includ-			
ing pipe fit-			
tings)	95	166	37
Total	10,207	6,541	11,390

British Bureau of Non-Ferrous Metal Statistics

[illegible]

	Unalloyed	Alloyed*	Total	Virgin	Scrap
1956 Total	388,167	251,312	639,479	500,794	138,685
1957 Total	407,326	234,158	641,484	507,493	133,991
1958 Total	442,977	225,007	667,978	534,619	133,359
1959					
March	27,864	19,567	47,431	36,124	11,307
April	32,742	22,782	55,525	43,015	12,509
May	28,421	19,199	47,620	33,367	14,253
June	35,009	21,103	56,112	44,761	11,351
July	24,714	19,858	44,572	32,034	12,538
August	24,524	16,097	40,621	30,866	9,735
September	35,447	21,920	57,367	45,178	12,189
October	37,221	23,880	61,101	47,345	13,756
November	37,463	23,392	60,855	47,031	13,824
December	36,044	23,202	59,246	44,753	14,493
Total	382,295	250,871	633,166	478,819	154,347
1960					
January	33,888	23,428	57,316	41,741	15,575
February	37,662	23,925	61,587	48,824	12,763
March	41,306	26,676	67,982	54,389	13,593
April	35,153	23,525	58,678	41,147	17,531
May	38,621	25,038	63,659	46,406	17,253
June	40,612	24,786	65,398	54,830	10,568

* Includes copper sulphate effective October, 1954

(In long tons)

(British Bureau of Non-Ferrous Metal Statistics)

At start of.	1958	1959	1960
Jan.	91,477	64,184	55,005
Feb.	82,483	65,941	61,008
Mar.	89,147	65,875	55,979
Apr.	94,330	72,946	51,137
May	88,582	72,318	59,404
June	88,913	78,505	77,808
July	81,851	80,477	71,391
Aug.	84,756	81,986	....
Sept.	89,899	89,483	....
Oct.	85,092	77,803	....
Nov.	74,696	64,602	....
Dec.	69,023	60,936	....

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)

At start of.	1958	1959	1960
Jan.	51,296	45,444	48,035
Feb.	49,134	48,102	44,290
Mar.	47,738	40,535	42,043
Apr.	40,547	53,289	41,248
May	37,509	62,286	50,363
June	34,608	63,135	45,657
July	40,518	57,810	46,542
Aug.	37,148	67,586	.....
Sept.	43,758	66,048	.....
Oct.	48,856	63,121	.....
Nov.	40,216	56,697	.....
Dec.	35,335	46,984	.....

Reported in pigs, bars, etc.; metric tons
except where otherwise noted.

except where otherwise noted.			
	Apr.	1960	
		May	June
IMPORTS			
U. S. (s.t.)	7,500	6,820	15,475
Denmark	929	866	1,530
France	2,744	2,630	2,347
Germany, W.*	8,950	11,348	
Netherlands	618	1,138	609
Sweden	3,148	2,289	
Switzerland*	1,608	1,317	2,915
U. K. (l.t.)	15,094	13,018	15,850
India† (l.t.)	5,131		

EXPORTS

U. S. (s.t.)	4,656	7,066	4,236
Canada (s.t.)	10,281	13,440	22,409
Denmark	109	101	409
France	548	371	465
Germany, W.*	1,616	2,233	...
Netherlands	993	1,265	1,530
Norway	3,658	...	...
Switzerland*	...	...	4
U. K.† (l.t.)	1,265	605	1,435
Northern			
Rhodesia† (l.t.)	2,240	...	...
Australia (l.t.)	2,068	3,317	...

* Includes scrap.

‡ Includes manufactures.

† British Bureau of Non-Ferrous Metal Statistics.

(British Bureau of Non-Ferrous Metal Statistics)

Tin Content of Tin in Ore	Tin Metal
100	100
90	90
80	80
70	70
60	60
50	50
40	40
30	30
20	20
10	10
0	0

	Imports	Production*	Stock at end of period*	Imports	Production*	Consumption	Exports & Re-exports	Stock at end of period
1957 Total	39,272	1,028	.....	9,834	34,175	20,365	7,362	17,951
1958 Total	27,419	1,090	.....	13,195	32,551	20,413	20,398	19,054
1959								
July	2,971	112	2,043	47	2,735	1,652	2,639	11,255
August	1,970	58	1,704	21	1,908	1,224	2,956	10,752
September	2,990	115	2,132	33	2,229	2,093	3,742	10,624
October	2,259	108	1,851	24	3,101	1,915	1,986	10,383
November	3,936	90	3,317	25	2,513	1,861	1,997	10,546
December	2,161	117	2,941	15	2,868	1,997	1,513	11,523
Total	25,812	1,252	.....	726	27,229	21,396	21,856	10,884
1960								
January	1,490	117	1,845	190	2,377	1,878	1,394	10,884
February	2,417	105	2,095	421	2,144	1,879	1,189	10,240
March	2,298	106	2,316	10	2,743	2,191	1,099	10,577
April	1,532	90	1,625	159	2,618	1,774	2,331	10,349
May	1,785	21	1,496	66	2,429	1,902	723	10,565
June	2,255	21	2,255	25	2,828	2,133	500	11,118

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Primary Copper)				
(In Tons)				
	1957	1958	1959	1960
Jan. . .	25,469	32,868	24,664	36,404
Feb. . .	21,861	28,668	28,016	35,824
Mar. . .	27,663	29,239	32,427	38,341
Apr. . .	27,398	30,635	32,130	34,290
May . .	29,086	32,471	32,622	36,892
June . .	24,093	32,418	36,979	37,016
July . .	27,195	31,131	36,067	...
Aug. . .	26,943	30,867	35,045	...
Sept. .	24,633	27,546	35,740	...
Oct. . .	30,312	22,572	35,980	...
Nov. . .	27,331	20,368	35,271	...
Dec. . .	31,604	19,033	34,416	...
Year	323,588	346,816	399,362	...

Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets)				
(In Tons)				
	1957	1958	1959	1960
Jan. . .	20,582	26,883	10,620	29,046
Feb. . .	16,272	16,816	10,304	22,295
Mar. . .	14,270	18,662	11,025	20,338
Apr. . .	16,417	23,261	17,079	21,135
May . .	19,048	19,358	21,739	20,767
June . .	10,826	20,831	21,310	24,832
July . .	18,621	21,703	13,650	...
Aug. . .	21,980	15,881	15,155	...
Sept. .	14,314	15,373	21,077	...
Oct. . .	13,110	20,341	19,977	...
Nov. . .	16,622	14,391	23,172	...
Dec. . .	16,282	11,138	20,542	...
Year	198,794	224,638	198,010	...

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*				
(In Tons)				
	1957	1958	1959	1960
Jan. . .	14,032	17,117	17,118	16,284
Feb. . .	15,170	14,908	15,923	16,397
Mar. . .	16,940	15,421	17,389	16,887
Apr. . .	14,275	15,644	16,237	16,266
May . .	14,591	15,131	16,813	16,558
June . .	16,431	15,645	14,968	17,526
July . .	14,377	14,076	15,111	...
Aug. . .	14,679	12,260	14,104	...
Sept. .	15,869	15,401	12,420	...
Oct. . .	14,151	14,564	13,958	...
Nov. . .	15,879	16,680	13,024	...
Dec. . .	15,296	18,248	14,545	...
Year	171,690	185,095	181,610	...

* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)				
(In Tons)				
	1957	1958	1959	1960
Jan. . .	8,946	4,752	5,034	5,549
Feb. . .	6,633	1,553	6,377	6,692
Mar. . .	7,044	9,497	11,831	11,216
Apr. . .	7,314	7,450	7,836	5,407
May . .	9,676	7,764	12,230	6,979
June . .	7,210	4,036	15,610	...
July . .	4,682	12,629	3,478	...
Aug. . .	6,416	7,232	4,023	...
Sept. .	8,467	5,125	3,895	...
Oct. . .	7,761	10,320	4,885	...
Nov. . .	6,175	10,641	6,785	...
Dec. . .	4,217	11,352	10,218	...
Year	84,541	92,351	92,252	...

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)				
(In Tons)				
	1957	1958	1959	1960
Jan. . .	20,340	21,801	21,456	22,247
Feb. . .	19,808	19,743	19,709	21,055
Mar. . .	21,941	22,314	22,135	22,549
Apr. . .	20,504	20,986	21,512	21,391
May . .	20,564	21,269	21,147	21,701
June . .	19,928	20,353	21,250	21,294
July . .	20,061	20,873	21,055	...
Aug. . .	20,305	21,152	21,588	...
Sept. .	20,247	20,530	20,744	...
Oct. . .	20,892	21,125	21,744	...
Nov. . .	20,933	20,273	21,039	...
Dec. . .	21,823	21,705	21,963	...
Year	247,351	252,157	255,342	...

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Ore in Tons)				
	1957	1958	1959	1960
Jan. . .	19,304	17,349	13,565	18,445
Feb. . .	16,618	8,376	12,675	12,995
Mar. . .	14,923	19,636	14,617	14,055
Apr. . .	17,131	16,346	12,789	13,344
May . .	16,680	15,121	11,049	12,460
June . .	16,157	7,776	20,298	10,113
July . .	12,912	27,394	23,122	...
Aug. . .	20,520	15,906	18,464	...
Sept. .	17,671	8,670	14,367	...
Oct. . .	16,735	22,810	12,518	...
Nov. . .	17,225	17,978	16,577	...
Dec. . .	16,131	18,344	11,043	...
Year	202,007	195,707	181,084	...

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)				
Fine Ounces)				
	1958	1959	1960	
Jan. . .	634,715	185,367	887,242	
Feb. . .	208,149	329,742	1,312,006	
Mar. . .	350,827	425,973	740,465	
Apr. . .	284,971	989,593	809,500	
May . .	376,082	564,017	491,805	
June . .	438,253	871,570	545,610	
July . .	529,770	728,598	.....
Aug. . .	279,511	688,042	.....
Sept. .	583,570	763,017	.....
Oct. . .	323,475	767,939	.....
Nov. . .	217,892	70,205	.....
Dec. . .	871,573	430,802	.....
Year	5,098,788	6,210,175	.....

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)				
	1958	1959	1960	
Jan. . .	2,529,583	3,094,440	2,755,069	
Feb. . .	2,294,655	2,264,903	2,864,074	
Mar. . .	2,448,698	2,782,307	2,734,245	
Apr. . .	2,558,958	2,691,503	2,568,008	
May . .	2,650,665	2,499,149	2,316,482	
June . .	2,527,632	2,676,937	2,953,893	
July . .	2,385,687	2,867,957	.....
Aug. . .	2,884,154	2,519,033	.....
Sept. .	2,856,304	2,446,846	.....
Oct. . .	2,390,027	3,072,219	.....
Nov. . .	2,643,790	2,333,137	.....
Dec. . .	2,917,528	2,678,623	.....
Year	31,087,681	31,927,054	.....

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)				
	1957	1958	1959	1960
Jan. . .	16,609	16,710	8,047	17,399
Feb. . .	15,027	15,896	12,616	16,435
Mar. . .	16,733	15,853	14,922	17,780
Apr. . .	15,347	15,163	15,493	17,524
May . .	16,225	15,231	16,622	17,207
June . .	15,447	14,603	16,599	18,382
July . .	15,878	12,851	16,199	...
Aug. . .	16,756	12,597	16,784	...
Sept. .	15,604	11,786	16,205	...
Oct. . .	15,628	3,682	17,212	...
Nov. . .	14,587	3,178	16,904	...
Dec. . .	15,096	3,298	18,738	...
Year	188,962	140,842	186,341	...

METALS, SEPTEMBER, 1960

Canadian Copper Exports

(Dominion Bureau of Statistics)
(In tons of 2,000 lbs.)

	1960		
	May	June	July
Ore, matte, regulas, etc. (content)	2,332	3,142	2,689
United States ..	1,086	699	1,378
Norway	1,041	2,014	1,209
U. Kingdom ..	205	161	102
Japan	268	...	...
Ingots, bars, billets, anodes ..	20,767	24,831	22,242
United States ..	8,056	7,670	5,169
Brazil	138	...	...
Belgium	280	280	...
France	1,118	280	841
Finland	280	...	280
Germany (W.) ..	593	644	1,316
Italy	84	112	504
Netherlands ..	84	644	28
Portugal .....	...	...	224
Sweden .....	...	112	450
Switzerland ..	...	112	...
U. Kingdom ..	9,672	12,335	11,767
Australia .....	...	280	...
India	458	2,361	1,663
Other countries ..	4	1	...

Total Exports:

Crude & refined ..	23,099	27,973	24,931
Old and scrap ..	1,634	1,154	1,555
Rods, strips, sheet & tubing ..	1,935	1,722	2,089

Canadian Zinc Exports

(Dominion Bureau of Statistics)
(In tons of 2,000 lbs.)

	1960		
	May	June	July
Ore (zinc content)	12,460	10,113	18,540
United States ..	12,460	10,113	9,762
Belgium .....	...	...	76
Norway .....	...	...	4,349
U. Kingdom ..	...	...	4,353
Slab zinc	13,440	22,409	11,433
United States ..	4,457	10,075	2,356
Brazil	231	172	580
Denmark .....	...	336	...
Germany (W.) ..	...	...	336
Netherlands ..	868	56	...
U. Kingdom ..	6,308	8,390	6,693
Korea .....	...	51	219
Philippines ..	...	...	355
Taiwan	33	99	...
India	1,543	2,921	524
Japan .....	...	...	15
Thailand .....	...	309	355

Total Exports:

Ore and slabs ..	25,900	32,522	29,973
Zinc scrap, dross, ashes ..	1,029	727	432
United States ..	129	171	47
Belgium	705	189	243
Germany (W.) ..	...	138	...
Netherlands ..	195	142	76
Japan .....	...	87	66

French Copper Imports

(A. B. M. S.)
(In metric tons)

	1960		
	May	June	July
Crude copper for refining (blister, black and cement) .....	...	813	...
Belgian Congo ..	...	813	...
Refined	19,201	14,758	16,976
United States ..	4,525	2,383	6,181
Canada	1,271	1,525	1,131
Chile	3,500	1,300	250
Belgium	5,196	4,379	5,875
Germany (W.) ..	119	319	334
Norway	152	...	76
Sweden	30	5	4
Belgian Congo ..	2,296	2,255	1,065
Rhodesia- Nyasaland ..	2,112	2,522	2,060
Other countries ..	...	70	...

Canadian Lead Exports

(Dominion Bureau of Statistics)

	1960		
	May	June	July
Ore (lead content)	2,708	1,599	3,505
United States ..	2,708	1,599	2,677
Belgium .....	...	...	828
Refined lead	6,979	9,521	7,955
United States ..	1,858	3,396	3,961
U. Kingdom ..	4,821	5,596	3,217
Japan	110	456	642
Taiwan	132	...	22
India	56	56	91
Other countries ..	2	17	22
Total Exports:			
Ore & refined ..	9,687	11,120	11,460
Lead scrap	735	802	1,015

Copper Imports and Exports By Principal Countries

(A. B. M. S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

	1960		
	Apr.	May	June
IMPORTS			
U. S. (blister, s.t.) ..	22,815	16,180	36,670
(ore, etc. s.t.) ..	10,768	6,314	8,080
(ref., s.t.)	10,087	7,152	7,464
Denmark	400	215	420
France (crude) ..	813	...	813
(refined)	16,126	...	...
Germany, West ..	31,907	38,824	...
Netherlands	2,069	2,360	2,660
Norway	389	...	...
Sweden	5,179	4,010	...
Switzerland	2,514	2,251	3,435
U. K. (l.t.)	43,110	59,090	49,676
India (blister/- ref., l.t.)†	2,344	...	...
U. S. (ore, and EXPORTS			
unref., s.t.)	671	278	1,308
(ref., s.t.)	31,329	50,753	38,757
Canada (ref., s.t.) ..	21,135	20,767	24,831
Germany, West ..	4,966	3,696	...
Norway	940	...	...
Sweden	1,316	691	...
U. K. (l.t.)	3,422	2,953	4,633
Turkey*	1,220	...	...
No. Rhodesia (blister & ref., l.t.)† ..	39,988	46,151	49,204

* Includes alloys.

† British Bureau of Non-Ferrous Metal Statistics.

Canada's Nickel Exports

(Dominion Bureau of Statistics)

(Refined, in oxide, matte, etc.)

	1960			
	1957	1958	1959	1960
Jan.	14,260	14,233	6,757	21,443
Feb.	9,974	12,157	7,976	14,680
Mar.	14,958	12,316	14,006	19,072
Apr.	18,671	20,962	14,213	13,892
May	19,351	20,574	16,142	14,351
June	14,539	16,144	15,901	15,719
July	14,181	14,055	11,985	...
Aug.	14,966	13,012	13,664	...
Sept.	14,160	14,371	19,143	...
Oct.	13,370	8,335	...	...
Nov.	16,620	3,001	...	...
Dec.	14,606	5,060	...	...
Year	178,656	154,220	...	...

French Zinc Imports

(A. B. M. S.)
(In metric tons)

	1960		
	May	June	July
Ore (gross weight)	18,296	28,390	25,160
Belgium .....	...	779	1,603
Finland .....	...	1,706	...
Greece	4,390	1,177	...
Italy	1,648	3,123	...
Spain	903	4,940	4,414
Algeria	5,165	6,396	4,991
Morocco	4,098	7,443	6,632
Tunisia	2,092	...	...
Belgian Congo ..	...	2,758	2,520
Burma .....	...	68	...
Canada .....	...	...	5,000
Slabs, bars, blocks, etc. ...	2,630	2,347	1,979
Peru .....	...	51	...
Belgium	1,935	1,940	1,195
Germany (W.) ..	129	30	...
Italy	51	51	51
Netherlands ..	...	266	...
Norway	500	...	...
Russia .....	...	...	633
Algeria	15	9	...
Spain .....	...	...	100

French Metal Exports

(A. B. M. S.)
(In metric tons)

	1960		
	May	June	July
Lead			
Ore (gross weight)	603	1,312	680
Pig lead	542	616	328
United States ..	...	262	...
Switzerland	252	256	318
Egypt	278	60	...
Other countries ..	12	38	10
Antimonial lead ..	108	102	98

Copper

Crude copper for refining (blister, black and cement)	708	929	734
-------------------------------------------------------------	-----	-----	-----

Zinc

Slabs, bars, block, etc. ...	371	465	546
------------------------------	-----	-----	-----

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

	1960		
	May	June	July
Copper and copper alloys: (Gross wt.) ..	59,090	45,676	56,443
U. of S. Africa ..	...	200	300
Rhodesia- Nyasaland ..	25,903	18,114	23,275
Canada	10,384	9,169	9,740
Belgium	452	127	2
Germany (W.) ..	34	31	1,077
Norway	301	300	201
United States ..	7,509	7,635	9,630
Chile	12,428	9,084	11,540
Peru	1,075	534	170
Belgian Congo ..	250	250	250
Other countries ..	754	232	258
Of which:			
Electrolytic	38,963	29,777	37,704
Other refined ..	8,445	4,550	6,253
Blister or wrought	10,656	10,980	11,690
Wrought and alloys	1,026	369	796
Total	59,090	45,676	56,443

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL
(Bureau of Census — Thousands of Pounds)

	Alu- minum	Copper	Mag- nesium	Zinc	Lead Die
1954 Total	607,764	834,557	25,572	474,741	18,396
1955 Total	833,058	1,011,748	27,892	781,254	21,045
1956 Total	801,136	966,473	36,168	88,069	20,734
1957 Total	751,856	875,389	30,322	663,330	23,791
1958 Total	596,816	739,915	27,228	508,297	18,920
1959					
February	62,486	69,589	2,162	48,779	1,285
March	73,351	78,641	2,129	57,600	1,765
April	72,976	82,799	2,455	57,325	1,862
May	68,268	78,413	2,370	60,656	2,025
June	66,471	79,730	2,484	56,128	2,007
July	56,911	67,073	2,265	46,756	1,858
August	55,904	68,979	2,243	46,566	1,898
September	66,193	76,045	2,263	58,144	2,218
October	67,499	79,832	2,436	59,214	2,068
November	54,557	70,674	2,023	46,270	1,755
December	64,939	73,558	2,163	60,652	1,346
Total	790,520	892,027	27,144	651,437	21,658
1960					
January	68,247	73,971	2,135	61,357	1,496
February	71,699	71,797	2,075	62,925	1,628
March	72,216	75,908	1,903	60,816	1,994
April	61,797	66,777	1,926	47,553	2,030
May	60,330	66,299	1,953	50,844	1,935
June	60,068	65,125	2,050	50,920	2,009

Copper Castings Shipments

BY TYPE OF CASTING
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent	Die	All Other
1952 Total	1,009,910	910,862	63,865	8,250	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954 Total	834,557	751,804	48,849	6,480	27,394
1955 Total	1,011,748	907,852	63,041	8,541	31,408
1956 Total	966,113	866,404	57,522	10,023	32,134
1957 Total	875,389	789,819	44,746	10,776	30,048
1958					
November	62,746	57,386	2,604	810	1,946
December	67,905	61,119	3,535	1,059	2,192
Total	739,985	667,255	36,529	10,201	22,681
1959					
February	66,589	62,593	3,557	1,176	2,263
March	78,641	69,472	4,333	1,361	3,475
April	82,799	73,567	4,640	1,328	3,264
May	78,413	69,351	4,363	1,291	3,498
June	79,730	70,836	4,421	1,175	3,298
July	69,073	61,650	3,869	946	2,608
August	68,979	60,346	4,410	993	3,230
September	76,045	66,517	4,810	1,138	3,580
October	79,832	69,583	5,172	1,169	3,908
November	70,674	61,490	4,893	1,160	3,131
December	73,558	64,579	4,337	1,130	3,512
Total	891,216	790,290	52,377	14,083	36,907
1960					
January	73,971	65,742	3,915	1,371	2,943
February	71,797	63,105	4,146	1,282	3,266
March	75,908	66,517	4,346	1,381	3,664
April	66,777	58,453	4,523	1,162	2,639
May	66,299	57,848	4,463	1,153	2,835
June	65,125	57,848	4,041	1,180	3,249

Nickel Averages

Electro, cathode sheets, 99.00%,
f.o.b. refinery, duty included
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	74.00	74.00	74.00	74.00
Feb.	74.00	74.00	74.00	74.00
Mar.	74.00	74.00	74.00	74.00
Apr.	74.00	74.00	74.00	74.00
May	74.00	74.00	74.00	74.00
June	74.00	74.00	74.00	74.00
July	74.00	74.00	74.00	74.00
Aug.	74.00	74.00	74.00	74.00
Sept.	74.00	74.00	74.00	...
Oct.	74.00	74.00	74.00	...
Nov.	74.00	74.00	74.00	...
Dec.	74.00	74.00	74.00	...
Aver.	74.00	74.00	74.00	...

Platinum Averages

N. Y. MONTHLY QUOTATIONS
(Dollars per Troy Ounce)

	1957	1958	1959	1960
Jan.	101.92	77.85	52.57	80.00
Feb.	98.59	74.82	59.25	83.29
Mar.	93.50	72.096	77.10	83.00
Apr.	93.45	70.72	77.18	83.00
May	92.865	67.34	77.50	83.00
June	92.02	66.18	77.50	83.00
July	90.265	64.35	78.00	83.00
Aug.	84.426	60.94	78.00	83.00
Sept.	84.00	59.50	78.00	...
Oct.	84.00	57.327	78.00	...
Nov.	83.80	56.41	78.44	...
Dec.	78.70	53.154	78.50	...
Aver.	89.79	65.07	74.17	...

Spot Straits Tin

(Straits, Open Market, N. Y.)

Monthly Average Prices

	1957	1958	1959	1960
Jan.	101.511	92.94	99.411	99.863
Feb.	101.132	93.915	102.785	101.178
Mar.	99.643	94.452	103.042	100.228
Apr.	99.304	93.988	102.505	99.25
May	93.347	94.512	103.125	99.554
June	98.05	94.708	104.25	101.377
July	96.52	94.898	102.337	103.588
Aug.	94.261	94.988	102.333	102.864
Sept.	93.406	94.101	102.44	...
Oct.	91.838	96.523	102.238	...
Nov.	89.236	99.118	101.021	...
Dec.	92.35	98.989	99.176	...
Aver.	96.301	95.177	102.055	...

Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices

(Cents Per Pound)

	1957	1958	1959	1960
Jan.	101.347	92.653	99.351	99.863
Feb.	100.257	93.763	102.708	100.987
Mar.	99.476	94.363	103.042	100.098
Apr.	99.288	92.988	102.505	99.25
May	98.335	94.512	103.107	99.548
June	98.025	94.619	104.142	101.318
July	96.44	94.892	102.337	103.525
Aug.	94.159	94.976	102.345	102.853
Sept.	93.313	94.054	102.435	...
Oct.	91.848	96.455	102.238	...
Nov.	89.236	98.985	100.972	...
Dec.	92.34	98.96	99.176	...
Aver.	93.672	95.069	102.03	...

Quicksilver Averages

N. Y. Monthly Averages
Virgin, Dollars per 76-lb Flask

	1957	1958	1959	1960
Jan.	256.00	224.35	219.50	211.30
Feb.	256.00	229.39	219.50	212.68
Mar.	256.00	232.096	223.57	214.00
Apr.	256.00	233.06	239.52	214.00
May	256.00	229.48	245.86	214.00
June	256.00	229.00	241.64	212.00
July	256.00	230.25	236.74	210.00
Aug.	252.20	240.27	232.524	209.74
Sept.	248.58	241.12	225.429	...
Oct.	234.48	235.94	224.548	...
Nov.	228.33	230.05	217.944	...
Dec.	226.50	223.54	215.05	...
Aver.	248.51	230.96	228.49	...

METALS, SEPTEMBER, 1960

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)					
	Stocks beginning of month short tons	Production short tons	Sold or Used— Short tons	Value f. o. b. plant	Stocks end of month short tons
1958					
Total		1,565,556	1,595,067		
1959					
May	131,460	163,857	182,607	89,672,327	112,710
June	112,710	167,323	191,421	93,955,552	88,612
July	88,612	179,194	187,387	91,635,864	80,419
August	80,419	172,816	159,206	77,711,678	94,029
September	94,029	168,206	153,170	74,809,052	109,065
October	109,065	173,742	151,683	73,293,070	131,124
November	131,124	153,665	152,024	74,247,828	132,765
December	132,765	162,996	184,123	89,712,146	111,638
Total		1,953,017	1,987,465		
1960					
January	111,638	164,023	148,129	\$73,424,794	127,352
February	127,352	156,825	167,215	83,087,192	117,142
March	117,142	170,688	172,846	88,761,065	114,984
April	114,984	168,596	144,469	73,561,622	139,111
May	139,111	175,863	166,403	85,418,807	148,571
June	148,571	171,356	149,917	76,925,639	170,010

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS
(Bureau of Census — Thousands of Pounds)

	Total	Sheet, Plate, Foil, Rod & Bar	Wire & Cable	Extruded Shapes & Tubing	Powder & Paste
1955 Total	2,805,500	1,542,868	365,391	812,311	35,854
1956 Total	2,870,101	1,577,601	398,602	782,398	28,017
1957 Total	2,677,423	1,396,502	399,040	789,430	28,187
1958					
Total	2,624,911	1,441,385	285,355	821,249	25,742
1959					
April	293,554	166,942	25,468	93,475	3,178
May	320,786	184,664	28,532	99,308	3,641
June	341,389	195,476	30,156	107,038	3,901
July	373,060	211,850	39,902	111,661	4,708
August	247,833	126,512	29,411	85,380	2,537
September	262,749	140,313	25,843	89,986	2,419
October	287,081	154,669	27,614	97,478	2,697
November	247,260	136,516	20,528	83,594	2,304
December	268,155	152,007	24,210	84,504	2,606
Total	3,397,705	1,894,159	321,824	1,075,373	34,843
1960					
January	250,116	141,060	22,475	78,674	3,370
February	256,017	147,026	22,626	79,268	2,435
March	267,149	152,580	24,682	82,584	2,180
April	247,382	139,762	24,026	76,838	2,227
May	268,228	156,542	25,218	84,202	2,266
June	274,173	157,006	29,114	84,664	3,389
July	247,590	149,221	24,813	70,786	2,770

Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

	Total (Thousands of Pounds)	Sand	Permanent Mold	Die	All Other
1954 Total	609,066	155,738	213,968	232,726	6,800
1955 Total	833,058	171,757	298,115	354,804	8,282
1956 Total	801,036	171,763	245,421	376,108	7,736
1957 Total	751,656	144,121	232,326	369,086	...
1958					
Total	596,790	117,421	186,949	292,599	...
1959					
March	73,351	12,412	26,964	33,949	...
April	72,976	12,700	26,153	33,992	...
May	68,268	11,979	25,283	30,877	...
June	66,471	12,306	24,927	29,092	...
July	56,911	11,581	20,410	24,786	...
August	55,904	11,130	17,824	26,818	...
September	66,193	12,309	21,506	32,239	...
October	67,499	12,958	21,781	32,640	...
November	54,557	10,813	16,326	27,303	...
December	64,939	12,409	19,902	32,523	...
Total	772,212	142,131	262,179	346,589	...
1960					
January	68,247	11,278	22,368	34,514	...
February	71,699	11,800	23,614	36,177	...
March	72,216	12,934	22,413	36,749	...
April	61,797	12,339	19,950	29,400	...
May	60,330	10,682	21,507	28,055	...

METALS, SEPTEMBER, 1960

Virgin Aluminum*

Unalloyed Ingot (50-lb.),
99½% min., f.o.b.

Monthly Average Prices
(Cents Per Pound)

	1957	1958	1959	1960
Jan.	27.10	28.10	26.80	28.10
Feb.	27.10	28.10	26.80	28.10
Mar.	27.10	28.10	26.80	28.10
Apr.	27.10	26.10	26.80	28.10
May	27.10	26.10	26.80	28.10
June	27.10	26.10	26.80	28.10
July	27.10	26.10	26.80	28.10
Aug.	28.70	26.77	26.80	26.00
Sept.	28.10	26.80	26.80	...
Oct.	28.10	26.80	26.80	...
Nov.	28.10	26.80	26.80	...
Dec.	28.10	26.80	27.361	...
Aver.	27.517	26.889	26.847	...

* Price of 28.10c prior to Aug. 1, 1960, based on primary 30-lb. ingot, 99½% plus.

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1957	1958	-1959	1960
Jan.	2,130	1,271	1,271	1,535
Feb.	2,522	1,280	1,691	1,724
Mar.	2,388	1,398	1,717	1,966
Apr.	2,511	1,479	2,089	1,790
May	2,230	1,443	1,644	1,989
June	1,881	1,709	1,946	1,742
July	1,428	1,227	1,681	1,526
Aug.	1,540	1,823	1,823	...
Sept.	1,501	1,807	1,807	...
Oct.	1,453	1,983	2,220	...
Nov.	1,230	1,662	1,320	...
Dec.	1,102	1,622	1,675	...
Total	21,915	18,702	20,884	...

Cadmium Averages

(Cents Per Pound)

N. Y. Monthly Averages

Cents per lb. in ton lots

	1957	1958	1959	1960
Jan.	170.00	155.00	145.00	148.50
Feb.	170.00	155.00	145.00	150.00
Mar.	170.00	155.00	145.00	150.00
Apr.	170.00	155.00	120.00	150.00
May	170.00	155.00	120.00	150.00
June	170.00	155.00	120.00	150.00
July	170.00	155.00	120.00	150.00
Aug.	170.00	155.00	120.00	150.00
Sept.	170.00	152.60	120.00	...
Oct.	170.00	145.00	*140.00	...
Nov.	170.00	145.00	140.00	...
Dec.	166.40	145.00	140.00	...
Aver.	169.70	152.30	132.00	...

* As of Oct. 1, 1959, for lots of up to one ton.

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies			Calculated weekly production, all companies		
	OPEN HEARTH	BESSEMER	ELECTRIC	TOTAL	% of capacity	(net tons)
1954 Total	80,327,494	73.6	2,548,104	53.2	5,436,054	52.0
1955 Total	102,840,585	91.6	3,227,997	67.4	9,147,567	81.2
1957 Total	101,657,770	87.0	2,475,138	54.9	8,582,082	71.3
1958						
Total	75,888,392	62.0	1,396,348	34.7	7,972,623	55.4
1959						
March	10,216,474	95.1	184,892	60.9	929,784	81.1
April	9,884,332	95.0	196,000	66.2	964,850	81.0
May	10,117,968	94.2	200,887	66.1	1,024,401	89.4
June	9,521,053	91.6	185,794	63.2	941,056	84.8
July	4,540,182	42.2	66,433	21.9	526,025	45.9
August	1,171,342	10.9			267,936	23.4
September	1,249,344	12.0			256,619	25.8
October	1,385,490	12.9			319,043	27.8
November	6,290,659	60.5	92,361	31.4	754,793	68.0
December	10,468,534	92.4	205,666	67.7	1,033,668	90.2
Total	81,668,997	64.5	1,380,283	38.6	8,532,514	63.2
1960						
January	10,510,616	97.7	211,132	73.2	1,046,675	85.6
February	9,713,527	94.0	216,263	80.2	949,588	83.0
March	10,103,122	93.9	202,812	70.3	952,008	77.9
April	8,603,306	82.7	105,336	37.7	766,452	64.8
May	7,844,140	72.9	73,010	25.3	603,817	49.4
June	6,439,000	61.9	80,000	28.7	560,000	47.3
July	5,494,331	51.1	61,700	21.4	505,890	41.4
August	5,860,000	54.5	53,000	18.4	643,000	52.6

Steel Ingot Operations

(Percentage of Capacity as Reported by American Iron & Steel Institute)

Week	1957	1958	1959	1960
Beginning	1957	1958	1959	1960
Jan. 4...	98.4	56.1	76.2	95.3
Jan. 11...	96.4	57.0	73.6	95.7
Jan. 18...	96.6	55.5	74.6	95.4
Jan. 25...	97.6	54.0	72.6	94.2
Feb. 1...	97.1	54.0	76.9	94.3
Feb. 8...	97.7	53.5	83.8	95.7
Feb. 15...	97.8	50.9	83.7	93.8
Feb. 22...	96.0	54.6	88.5	94.4
Feb. 29...	97.1	53.1	90.3	92.8
Mar. 7...	93.8	52.4	92.0	93.1
Mar. 14...	93.5	52.5	92.9	91.5
Mar. 21...	92.4	50.6	92.9	91.1
Mar. 28...	90.6	48.6	93.2	88.7
Apr. 4...	90.3	48.5	93.3	84.8
Apr. 11...	90.4	46.8	93.8	78.1
Apr. 18...	88.7	47.9	93.5	78.5
Apr. 25...	87.0	47.8	94.2	77.6
May 2...	86.7	49.4	92.0	75.0
May 9...	84.2	52.3	92.9	73.8
May 16...	86.4	56.4	93.4	71.3
May 23...	88.0	58.1	93.6	65.6
May 30...	87.5	62.5	93.7	60.6
June 6...	86.5	84.0	92.0	61.6
June 13...	85.2	64.9	92.5	62.3
June 20...	84.0	61.7	87.8	61.0
June 27...	78.5	51.0	78.2	53.0
July 4...	78.7	53.4	79.5	42.2
July 11...	79.3	54.9	38.7	51.8
July 18...	79.4	57.3	12.9	54.4
July 25...	79.4	57.8	12.2	53.3
Aug. 1...	79.8	58.8	11.2	53.9
Aug. 8...	80.6	60.5	11.8	53.5
Aug. 15...	82.1	62.6	11.3	54.7
Aug. 22...	82.2	63.5	11.7	54.3
Aug. 29...	81.0	61.7	11.5	52.0
Sept. 5...	81.9	65.9	11.6	49.2
Sept. 12...	82.1	65.6	12.6	...
Sept. 19...	82.2	67.3	12.8	...
Sept. 26...	82.6	70.4	12.8	...
Oct. 3...	82.8	71.6	12.8	...
Oct. 10...	80.9	74.2	13.0	...
Oct. 17...	80.2	74.8	13.1	...
Oct. 24...	79.7	75.0	13.1	...
Oct. 31...	78.0	74.5	13.0	...
Nov. 7...	77.7	74.5	45.6	...
Nov. 14...	76.0	74.1	78.9	...
Nov. 21...	72.1	73.7	89.7	...
Nov. 28...	71.5	73.5	93.6	...
Dec. 5...	69.2	73.5	96.5	...
Dec. 12...	67.7	74.5	96.3	...
Dec. 19...	53.7	74.5	94.9	...
Dec. 26...	59.0	73.6	96.3	...

Blast Furnace Output

(American Iron and Steel Institute)

Period	Pig Iron	net tons Ferro-manganese & Spiegele	Total Capacity	%
1951				
Jul. Yr.	70,487,880	745,381	71,232,761	98.3
1952				
Jul. Yr.	61,528,665	629,926	62,158,591	84.2
1953				
Total	74,987,721	865,038	75,842,759	95.5
1954				
Total	58,119,882	568,735	58,688,117	71.6
1955				
Total	77,114,078	868,758	77,982,831	92.7
1956				
Total	75,301,134	664,341	75,965,475	88.9
1957				
Total	78,557,011	782,660	79,339,671	91.4
1958				
Feb.	4,016,276	47,953	4,064,229	58.2
Mar.	4,418,778	45,175	4,463,953	57.8
April	3,787,907	39,302	3,827,209	51.2
May	4,048,328	25,468	4,073,796	52.7
June	4,396,285	26,463	4,422,748	59.1
July	4,277,515	26,668	4,304,183	55.7
Aug.	4,799,955	31,374	4,831,329	62.1
Sept.	5,041,042	31,348	5,072,390	67.8
Oct.	5,835,959	36,963	5,872,922	76.0
Nov.	5,907,838	39,275	5,946,113	79.5
Dec.	6,255,385	47,505	6,302,890	78.6
Total	57,298,644	465,456	57,764,100	63.5
1959				
Jan.	6,260,395	48,572	6,308,967	77.9
Feb.	6,047,398	45,274	6,092,672	85.3
March	7,461,760	48,291	7,510,051	93.4
April	7,338,372	54,234	7,392,606	95.0
May	7,693,759	61,237	7,755,000	96.4
June	7,231,631	58,315	7,289,946	93.7
July	3,550,159	23,391	3,573,550	44.5
Aug.			947,779	11.8
Sept.			949,103	12.2
Oct.			1,017,659	12.7
Nov.	4,199,101	20,172	4,219,273	54.2
Dec.	7,638,359	55,728	7,694,087	95.0
Total	60,322,426	452,313	60,774,739	...
1960				
Jan.	7,753,753	76,344	7,830,097	95.5
Feb.	7,342,469	71,533	7,414,002	...
March	7,713,696	79,715	7,793,411	95.1
April	6,770,229	69,864	6,840,093	86.1
May	6,030,992	63,419	6,094,411	78.0
June	5,261,171	48,316	5,309,487	66.9
July	4,480,144	43,353	4,523,497	55.2

Steel Castings Shipments

(Bureau of Census)

Period	(Short Tons)	For Sale	For Own Use
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953	1,829,277	1,290,016	431,330
1954	1,184,096	880,158	303,938
1955	1,530,694	1,166,706	363,988
1956	1,931,987	1,512,290	416,697
1957	1,766,191	1,261,301	406,444
1958			
May	87,002	66,086	20,916
June	92,681	71,624	21,237
July	68,802	48,618	10,184
Aug.	80,886	59,816	21,070
Sept.	85,277	64,586	20,691
Oct.	95,389	73,367	22,022
Nov.	85,267	65,788	19,479
Dec.	103,800	81,360	22,440
Total	1,114,939	859,125	255,814
1959			
Jan.	105,392	82,693	22,709
Feb.	110,280	86,013	24,267
Mar.	131,317	103,848	27,469
Apr.	134,344	104,890	29,454
May	135,359	105,804	29,555
June	143,624	111,725	31,899
July	106,790	83,541	23,249
Aug.	98,014	79,188	18,826
Sept.	99,731	79,963	19,768
Oct.	105,570	84,850	20,720
Nov.	109,460	86,026	23,434
Dec.	103,800	81,360	22,440
Total	1,023,861	919,181	294,430
1960			
Jan.	122,565	94,052	28,513
Feb.	129,259	97,927	31,332
Mar.	143,708	109,688	34,020
Apr.	127,219	96,557	30,662
May	126,580	97,231	29,349
June	136,992	107,076	29,916

Galvanized Sheet Shipments

(American Iron & Steel Institute)

Period	1957	1958	1959	1960
Jan.	235,902	186,649	279,244	323,073
Feb.	205,048	167,627	281,637	289,583
Mar.	206,836	195,885	311,961	329,395
Apr.	198,585	206,368	328,759	295,627
May	206,657	231,318	317,059	288,162
June	239,037	277,180	350,333	275,974
July	167,247	239,883	180,787	239,036
Aug.	186,790	253,263	N.A.	...
Sept.	183,952	258,723	N.A.	...
Oct.	212,886	290,157	N.A.	...
Nov.	190,380	253,909	196,644	...
Dec.	159,363	266,472	301,911	...
Total	2,392,637	2,828,948	2,772,887	...

N.A.—Not available.

SHIPMENTS OF TIN-TERNEPLATE

(American Iron & Steel Institute)

Period	—Hot Dipped—	—Electrolytic—
1959		
Jan.	30,304	32,525
Feb.	24,602	29,385
Mar.	46,705	38,131
Apr.	54,906	37,106
May	64,110	37,705
June	62,965	51,810
July	36,381	42,074
Aug.	N.A.	...
Sept.	N.A.	...
Oct.	N.A.	...
Nov.	21,782	296,641
Dec.	31,487	464,080
Total	412,123	4,858,511

N.A.—Not available.

INTERNATIONAL MINERALS and METALS CORPORATION

11 BROADWAY, NEW YORK 4, N. Y.

COPPER

ZINC

Buyers

ORES



CONCENTRATES

SCRAP



RESIDUES

For: **PHELPS DODGE PLANTS IN**

Laurel Hill, L. I., N. Y.

Douglas, Arizona

El Paso, Texas

For: **NATIONAL ZINC CO.**

(Subsidiary)

Bartlesville, Oklahoma

Sellers

COPPER (Electrolytic)



ZINC (All Grades)

CADMIUM



MERCURY

We'll get out of it what we put in!

Get Your Scrap Metal Out

CONSUMERS OF

NICKEL - COPPER - BEARING MATERIAL

NICKEL PLATERS - RACKS AND BASKETS

CLEAN AND OFF-GRADES OF MONEL METAL

I. Schumann & Company

4391 Bradley Road

P. O. Box 2219 - SHadyside 1-7800

Cleveland 9, Ohio

copper

Electrolytic NEC* CCC*

zinc

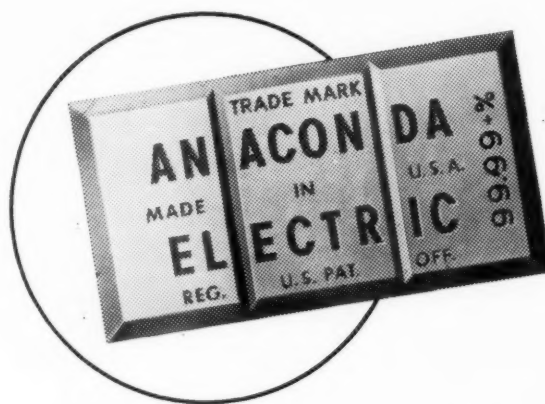
99.99+% Electric*
High Grade Electrolytic

lead

Common Desilverized ILR*

aluminum

Pig • Ingot



FERROMANGANESE STANDARD GRADE

CADMIUM • SILVER • BISMUTH • INDIUM

Arsenic • Palladium • Platinum • Selenium • Tellurium

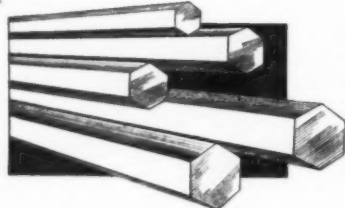
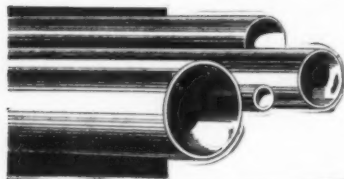
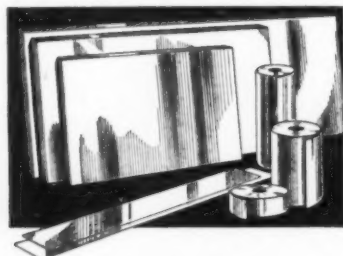
Anaconda Sales Company

25 Broadway, New York 4, New York

Subsidiary of The Anaconda Company

*Reg. U. S. Pat. Off.

60211



ANACONDA

COPPER • BRASS • BRONZE

Sheet, Strip, Rod, Wire, Copper Tubes and Fittings, 85 Red Brass Pipe, Free Cutting Rods, Die Pressed Forgings and Extrusions

made by

THE AMERICAN BRASS COMPANY • WATERBURY 20, CONN.

Subsidiary of The Anaconda Company

DISTRICT SALES OFFICES:

Ansonia, Conn.
Atlanta 8, Ga.
Buffalo 5, N. Y.
Cambridge 42, Mass.
Cedar Rapids, Iowa
Charlotte 2, N. C.
Chicago 39, Ill.
Cincinnati 2, Ohio
Cleveland 11, Ohio
Columbus 15, Ohio
Dallas 6, Texas
Denver 16, Colo.
Detroit 31, Mich.
Houston 2, Texas
Kansas City 5, Mo.

Kenosha, Wis.
Los Angeles 17, Calif.
Milwaukee 4, Wis.
Minneapolis 2, Minn.
Newark 2, N. J.
New York 16, N. Y.
Philadelphia 22, Pa.
Pittsburgh 19, Pa.
Providence 3, R. I.
Rochester 4, N. Y.
St. Louis 3, Mo.
San Francisco 4, Calif.
Seattle 1, Wash.
Syracuse 2, N. Y.
Torrington, Conn.

Washington 5, D. C.
Waterbury 20, Conn.

General Offices:
Waterbury 20, Conn.

In Canada: Anaconda American
Brass Limited General Offices:
New Toronto, Ontario

Montreal Office:
939 Dominion Square Building
Vancouver Office:
1030 West Georgia St.

*Warehouses

58294

